ANNUAL PLANNING INFORMATION REPORT FISCAL YEAR 1983 MASSACHUSETTS

LABOR AREA RESEARCH PUBLICATION

Massachusetts Division of Employment Security

job market research

THE COMMONWEALTH OF MASSACHUSETTS
DIVISION OF EMPLOYMENT SECURITY
Charles F. Hurley Building
Government Center, Boston MA. 02114

ANNUAL PLANNING INFORMATION REPORT

FISCAL YEAR 1983

MASSACHUSETTS

Prepared by: Gerald Fahey
Economist II
and
Peter Maloy
Senior Labor Market Economist

Eugene J. Doody, Director

Helen B. Munzer, Director
Job Market Research

Dorothy R. Sullivan
Chief Supervisor
Labor Area Research

Table Of Contents

		Page
	Executive Summary	1
I.	Assumptions and Projections for the Economy	2
II.	Description of State	6
	A. Massachusetts Labor Areas	6
	B. Massachusetts CETA Areas	7
	C. Massachusetts Job Bank Areas	7
	D. Description of Massachusetts	7
	E. Transportation	8
	F. Population	11
	G. Labor Force	11
	H. 1980 Census Data	12
III.	Economic Development and Outlook	20
	Employment Review	21
	Employment Outlook	22
	Trends by Industry	23
IV.	Employment Developments and Outlook by Occupation	
	A. Employment Trends	39
	B. Employment Projections by Occupations	50
V.	Trend in Unemployment	56
	Labor Area Trends	66
	Characteristics of the Insured Unemployed	69
VI.	Labor Supply-Demand Imbalances	79
VII.	Individuals in Need of Employment Service	87
VIII.	Training Opportunities for Massachusetts Labor Force	90
	Bay State Skills Corporation (BSSC)	90
	Career and Learning Line (CALL)	90
	Work and Training Program	90
	Vocational Rehabilitation Training	91
	Appendix	92

Table Of Contents
(continued)

Page

List of Tables

1. Total Population, Massachusetts and Counties..... 13

2. Population by Race and Spanish Origin..... 14

3. Population Composition Projected Change 1970-1983..... 15

4. Labor Force Projected Change 1970-1983..... 16

5. Labor Force Participation Rates, 1981 Annual Averages. 17

6. Selected Statistics from the 1980 Census..... 19

7. Employment in Massachusetts 1980-1982..... 27

8. Nonagricultural Wage and Salary Employment in Massachusetts, Calendar Years 1970-1981..... 28

9. Employment in Massachusetts, Calendar Years 1970-1981, Percentage Distribution..... 29

10. Massachusetts Private Industrial Employment and Percent Distribution of Subsectors 1976-1981..... 30

11. Massachusetts Projected Employment by Industry Federal Fiscal Years 1981-1983..... 35

12. Manufacturing Employment in Massachusetts as a Percent of U. S. Employment, Federal Fiscal Years 1980-1983..... 36

13. Percent Distribution of Employment, by Occupation, U. S. Mass. and Selected States, 1981 Annual Averages. 40

14. Percent Distribution of Employment by Occupation, U.S. and Mass. Demographic Groups, 1981 Annual Averages 42

15. Occupational Distribution, by Percent, U. S. 1981 EEO-1 Report Summary..... 44

16. Occupational Disbribution by Percent, Mass. 1979 EEO-1 Report Summary..... 46

17. Full and Part-time Status, Massachusetts Labor Force Annual Averages 1975-1981..... 48

Table Of Contents
(continued)

Page

List of Tables (continued)

18. Full and Part-time Status U. S. and Mass. Demographic Groups, 1981 Annual Averages..... 49

19. Massachusetts Employment by Occupation 1976 and Projected 1985..... 51

20. Claims Data January 1981-June 1982..... 58

21. State Monthly Labor Force Data January 1981-June 1982.. 59

22. Unemployment Rates January-June 1982 U.S. and Ten CPS States..... 60

23. Unemployment by State and Race - 1981 Annual Averages. 61

24. 1981 Annual Average Unemployment Rates - Men, Women, and Youth..... 63

25. Unemployment Rates 1970-1981 U. S., New England and CPS States..... 65

26. Unemployment Rates 1975-1981 Massachusetts and the Labor Areas..... 67

27. Labor Force, Employment, Unemployment -Massachusetts and the Labor Areas - 1981 Annual Averages..... 68

28. 1981 Annual Average Unemployment Rates - Experienced Labor Force, by Industry - U.S., Massachusetts and Selected States..... 70

29. 1981 Annual Average Unemployment - Experienced Labor Force by Occupation..... 71

30. Comparison of Unemployment by Occupation - U.S. and Massachusetts 1980 and 1981 Annual Averages..... 72

31A.) U.I. Benefit Payments by Industry and Sex..... 73
31B.)

32. Unemployed by Reason for Unemployment - U.S. and Massachusetts - 1981 Annual Average..... 75

Table Of Contents
(continued)

Page

List of Tables (Continued)

33. Unemployed by Duration of Unemployment - U.S. and Massachusetts Demographic Groups - 1981 Annual Averages..... 76

34. Racial Characteristics of the Insured Unemployed by Massachusetts CETA Prime Sponsor Area March 1982.... 77

35. Racial Characteristics of the Insured Unemployed by Massachusetts Labor Market Areas - March 1982.... 78

36. Active Applicants and Unfilled Job Openings - March 1982..... 80

37. Characteristics of Active Applicants - March 1982... 85

38. Family Poverty Level Incomes..... 87

39. Lower Living Standard Income Levels..... 88

40. 70 Percent Lower Living Standard Income Levels..... 88

41. Economically Disadvantaged 18 Years and Over FFY 1983. 89

List of Indexes

1. Annual Labor Demand-Massachusetts 1976-1985 Openings Due to Growth..... 52

2. Alphabetical Index of High Demand Occupations..... 53

3. High Demand Occupations by Major Occupational Cluster. 54

Map

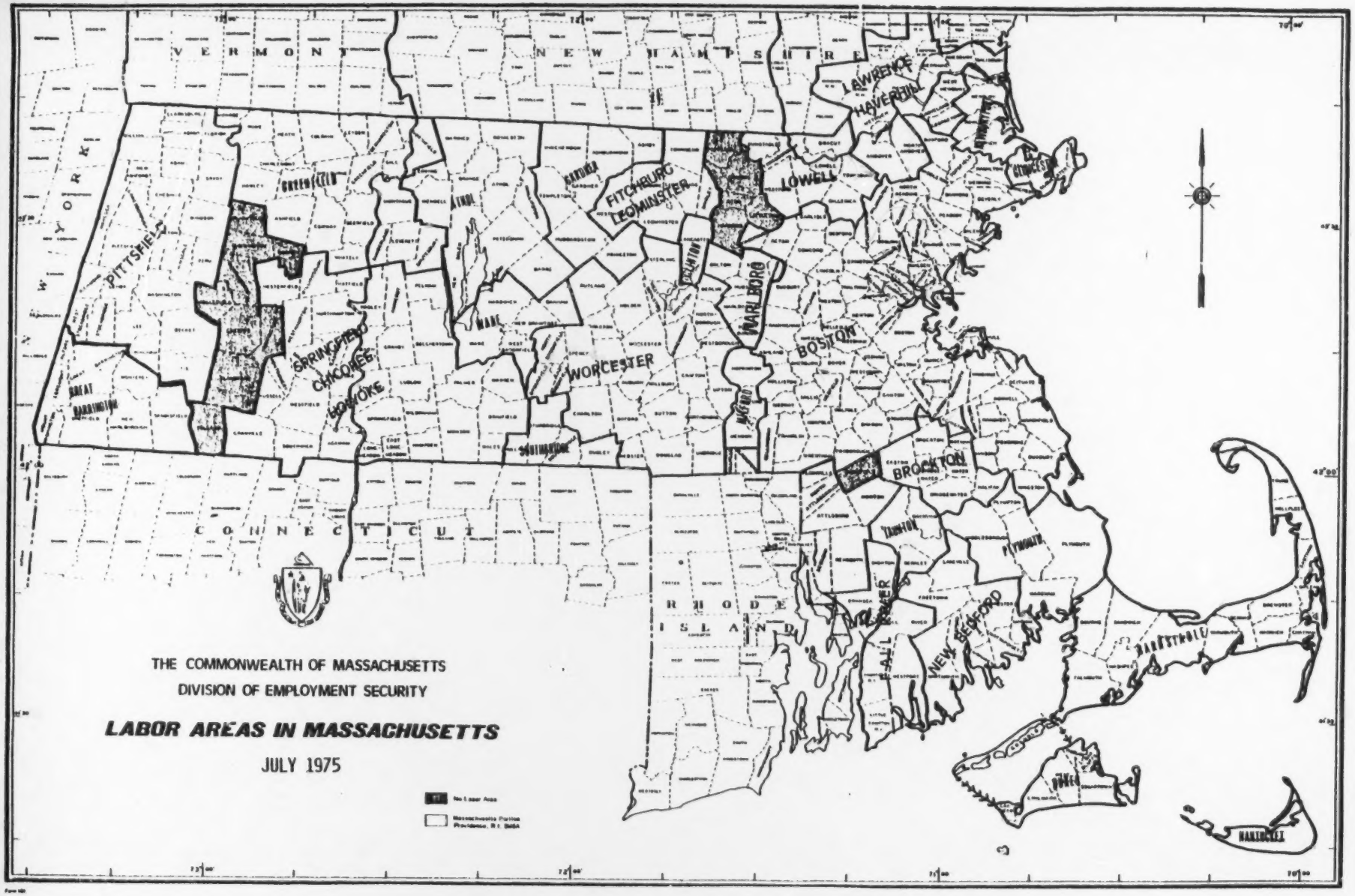
1. Massachusetts Labor Areas..... v

Appendix Tables

Job Bank:

Openings by Occupational Category..... 93

Average Pay by Occupational Category..... 96


VERMONT
NEW HAMPSHIRE
CONNECTICUT
RHODE ISLAND
PITTSFIELD
SPRINGFIELD
CHICOPEE
HOLYOKE
WORCESTER
FITCHBURG
LEOMINSTER
LOWELL
LAWRENCE
HAVERHILL
MARLBORO
BOSTON
BROCKTON
TAUNTON
FALL RIVER
NEW BEDFORD
PLYMOUTH
HYANNIS
NANTUCKET
THE COMMONWEALTH OF MASSACHUSETTS
DIVISION OF EMPLOYMENT SECURITY
LABOR AREAS IN MASSACHUSETTS
JULY 1975

Annual Planning Information Report
Massachusetts
Fiscal Year 1983

EXECUTIVE SUMMARY

Employment in Massachusetts increased by 18.3 percent between 1970 and 1981 while the total population was increasing by less than one percent.

- The most significant employment gains occurred within the nonmanufacturing sector where services lead the way.
- Employment growth in manufacturing was basically caused by the rapidly growing high technology industries of the durable goods sector.
- Job growth stabilized between 1980 and 1981 as the recession in the U.S. and other parts of the world was felt in Massachusetts.

The unemployment rate is expected to increase during FFY 1983, however, Massachusetts should fare as well as if not better than the majority of the ten large industrial states.

- The State's unemployment rate will remain below the national average and not revert to the doldrums of 1975-1978 when the unemployment rate remained well above the national level.
- The diversification of industry and the resurgence of high-tech employment growth once the recession subsides are major reasons for Massachusetts to fare better than national averages.
- Government employment will decline slightly due to further cutbacks but this will be accomplished through attrition and not through layoffs caused last year by Proposition $2\frac{1}{2}$ and federal cutbacks.

The 1981 labor force data from the Current Population Survey (CPS) provided more extensive detail than heretofore available for the State.

- During 1981, Massachusetts had a higher ratio of professional and technical workers than any state in the Union.
- The proportion of men and women in professional and technical jobs was more nearly equal within the Bay State than nationally.
- Proportionately, more people work part-time in Massachusetts than in the U.S. as a whole.
- All demographic groups for which information was available had lower levels of unemployment in Massachusetts during 1981 than occurred nationally.

I. ASSUMPTIONS AND PROJECTIONS FOR THE ECONOMY

COMMONWEALTH OF MASSACHUSETTS

FEDERAL FISCAL YEAR 1983 (FFY'83)

The Job Market Research staff of the Division of Employment Security gathers data, analyzes and reports on changes in the state's employment and unemployment situation. Even utilizing the most current data available together with computer models of the state and national economies, it is difficult to project future economic conditions. Forecasting is especially difficult during times of rapid change, such as we have been experiencing. The economic forecasts presented in this report are based on data available at the end of May, 1982.

1. EMPLOYMENT

Total employment in Massachusetts, as reported in the Current Population Statistics (CPS) series, is expected to average 2,794,300 during FFY'83, an increase of about 19,000 from FFY'82.

Nonagricultural wage and salary jobs, reported in the Current Employment Statistics series (CES-790) is expected to average 2,659,000 an increase of over 25,000 jobs from FFY'82 to FFY'83.

2. UNEMPLOYMENT

We project that Massachusetts unemployment rate will average 7.5 percent during FFY'83, down from 7.7 percent in FFY'82, and about one and one-half percentage points below the national average of 9.0 percent in FFY'83.

	MASSACHUSETTS				U. S.
	Labor Force (in 000's)	Employment (in 000's)	Unemployment (in 000's)	Unemployment Rate (%)	Unemployment Rate (%)
FFY '81	2935.1	2761.9	173.2	5.9	7.4
FFY '82*	3007.0	2775.5	231.5	7.7	9.1
FFY '83*	3021.6	2794.3	227.3	7.5	9.0

*** See Table in Section V for revisions.**

PROJECTED EMPLOYMENT BY INDUSTRY GROUP

Industry	Employment (in 000's)		
	FFY 1981 (Actual)	FFY 1982 (Projected)	FFY 1983 (Projected)
TOTAL NONAGRICULTURAL EMPLOYMENT	2656.8	2633.6	2659.3
Manufacturing - Total	668.0	646.4	647.5
Durable Goods	410.1	398.6	401.5
Nondurable Goods	257.9	247.8	246.0
Construction	78.0	80.1	80.7
Transportation, Communications and Public Utilities	120.3	118.1	117.7
Wholesale and Retail Trade	574.6	578.1	587.7
Finance, Insurance and Real Estate	162.5	166.4	169.5
Services	656.8	673.4	690.0
Government	396.6	371.1	366.2
Federal	57.7	56.3	56.2
State	97.8	94.5	92.4
Local	241.2	220.3	217.6

Prepared by: Job Market Research
July, 1982

3. Wages and Inflation

Wages are expected to increase by 7.2 percent in Federal Fiscal Year 1983, the same rate as in Federal Fiscal Year 1982. Total Massachusetts personal income, however, is expected to rise by nearly 9.3 percent. This increase in personal income coupled with the legislated decrease in federal personal income taxes, should cause total disposable income to rise by over 10 percent. The rate of price inflation is expected to be in the range of 6 to 7 percent.

4. Credit

Consumers wanting loans of any type; mortgage, home repair, car, or personal, will find that the supply of money will continue to be very tight. Interest rates on home mortgages are over 16 percent, personal loans over 18 percent, and certain commercial and construction loans are approximately 20 percent, however, some loans are expected to be made at varying rates. Banks and credit unions have significantly decreased or stopped making certain kinds of loans altogether.

A major cause of the tight money situation is the shift of money from regular savings accounts, where rates are limited by law, to savings certificates, money market accounts, and treasury obligations. All interest rates are sensitive to changes in U.S. Treasury and Federal Reserve Bank Policies. The size of the Federal tax cut and of the Federal budget deficit will influence the amount and the cost of credit in FFY '83. More loan money is expected to go to commercial borrowers next year rather than to those purchasing homes or cars.

5. Defense Contracts

Defense contract spending will increase. The dollar value of military prime contracts going to Massachusetts firms has been over five percent of the total awarded nationally for the last four years. We expect our percentage share of the awards to remain steady or to increase slightly. Due to the budgeted increases in military spending in the coming years, defense contracts in Massachusetts should provide support for the state's economy.

6. Energy

Energy costs are not expected to rise as rapidly during FFY '83 as they did for the past several years. Conservation and conversion to less expensive energy sources, both in this country and in Europe, should help to hold future prices down, and have already led to a temporary "oil glut". Next year Iran, Iraq, and the Soviet Union are all expected to sell more oil on world markets than this year. Counterbalancing these factors, some OPEC countries have cut back on production to maintain present price levels, and there is no consistent, long term, policy for "energy independence" either in this country or in Europe. The price of natural gas will increase, probably substantially, in the coming year. The effect of energy prices on employment should be fairly small. Relatively speaking, the industrial mix in Massachusetts is not energy intensive. Therefore, we do not expect that rising energy costs will hurt our industries to the same extent that it may elsewhere. The unknown of the energy situation remains in the potential for international political conflicts, particularly in the Mideast. Escalation of the wars or a shift in the balance of power could change conditions virtually overnight.

7. Export

Massachusetts will continue to rank among the top twelve states exporting manufactured products. Our leading exports will remain high technology equipment: instruments, electronic equipment, and computers. The actual demand for these products will be influenced by the rate of economic recovery in the nation and in the European Common Market countries. Many analysts believe that the recession has already "bottomed out".

II. Description of the State

A. Massachusetts Labor Areas

The United States Department of Labor Employment and Training Administration has apportioned the Commonwealth of Massachusetts into the following:

Four Standard Metropolitan Statistical Areas (SMSA)

Boston
Brockton
Fitchburg-Leominster
Lawrence-Haverhill

Seven Major Labor Market Areas (LMA)

Fall River
Lowell
New Bedford
Pittsfield
Springfield-Chicopee-Holyoke
Worcester
Massachusetts Portion of the
Providence-Pawtucket, Rhode Island Labor Area

Sixteen Small Labor Market Areas (LMA)

Athol	Marlborough
Barnstable County	Milford
Clinton	Nantucket County
Dukes	Newburyport
Gardner	Plymouth
Gloucester	Southbridge
Great Barrington	Taunton
Greenfield	Ware

and fifteen towns with no labor area attachment which comprise the Balance of State.

A "labor area" consists of a central city or cities and the surrounding territory within commuting distance. It is an economically integrated geographical unit within which workers may readily change jobs without changing their place of residence. Labor areas usually include one or more entire counties, except in New England where towns are considered the major geographical units.

B. Massachusetts CETA Areas by Prime Sponsors

Boston	New Bedford
Brockton	Pittsfield
Cambridge	Salem
Fall River	Springfield
Lowell	Worcester
Balance of Massachusetts	

C. Massachusetts Job Bank Areas

Boston	New Bedford
Brockton	Pittsfield
Fall River	Springfield-Chicopee-Holyoke
Fitchburg-Leominster	Worcester
Lawrence-Haverhill	Balance of State
Lowell	

D. Description of Massachusetts

Massachusetts is located in the Northeastern section of the Continental United States bordered by the states of Vermont and New Hampshire on the north, the Atlantic Ocean on the east, the states of Rhode Island and Connecticut on the south and the state of New York on the west. The area of the state is 8,093.02 square miles. Of this total, 7,838.68 square miles is land, while water covers an additional 254.34 square miles.

The climate of the State is favorable to industrial enterprise.

	Boston	New Bedford	Pittsfield	Worcester
Normal Temp. in Jan.	29.9°F	29.0°F	21.8°F	25.9°F
Normal Temp. in July	73.7°F	72.8°F	67.8°F	70.6°F
Normal Annual Precip.	42.8 inch.	45.3 inch.	44.4 inch.	45.4 inch.

Long renowned for its historical heritage, Massachusetts can claim impressive historical accomplishments aiding intellectual, cultural and social contributions to the founding and growth of the nation.

The State's Department of Commerce divides the Commonwealth into seven topographic regions. From east to west they are: (1) Cape Cod-flat, nearly at sea level with many lake or pond filled depressions; (2) Boston Basin-gentle contour with tear-drop shaped hills; (3) Seaboard Lowland-flat to gently rolling with 1,000 to 2,000 foot elevations; (4) New England Upland-rolling to hilly plateau with 1,000 to 2,000 foot elevations; (5) Lower Connecticut Valley-flat to gently rolling with less than 100 to 400 foot elevations; (6) Berkshire Hills-rough rolling upland with a general elevation of 2,000 feet and (7) Green Mountains and Foot Hills-rugged and mountainous with 1,500 to 3,000 foot elevations.

E. Transportation (courtesy of the Mass. Dept. of Commerce)

a. General: The Commonwealth of Massachusetts has adequate facilities for handling air, land and water transportation. Thirteen established regional planning agencies, encompassing within their regions all but 8 of the 351 municipalities, have, as one of their areas of interest, the planning for adequate transportation facilities.

b. Air: Logan International Airport in Boston is the heart of air activity in the state. This airport is the 13th busiest in the world, based on number of passengers with tickets starting or terminating at Boston. Logan is the nearest major United States' airport to its downtown business district and to Europe. In addition, the Commonwealth has 52 commercial airports, of which 26 are publicly operated and 26 privately. There are also 3 military airfields and 154 private restricted fields.

c. Commuting: The Boston and Maine Railroad supplies commuter service in the Boston Area subsidized by the Massachusetts Bay Transportation Authority, a state-created agency charged with the responsibility to supply commuter service to 79 municipalities in eastern Massachusetts. Rail commuter service has also been extended outside the Boston area to Concord, N.H. and Providence, R.I. and in Massachusetts to Franklin, Gardner, Haverhill and Rockport. Besides rail service, the MBTA serves commuters with fleets of buses, trolley busses, subway and elevated trains and high-speed trolley cars. Rapid transit facilities have been extended to the north, are being relocated to the railroad right-of-way to the south and extended on the Braintree-Cambridge line to the northwest.

Recognizing the responsibility of government to supply public services when private enterprises finds itself inadequate to the task, the 1973 session of the General Court enacted legislation providing for the creation of 10 transportation authorities to serve 10 population centers of the state, subject to acceptance by the municipalities permitted to form the 10 authorities. Provision is made in the law for the municipalities adjacent to an authority's area to join said area. The 1973 law permitted the following named areas to be served by these authorities: Attleboro-Taunton, Brockton, Cape Cod, Fall River-New Bedford, Fitchburg-Leominster-Gardner, Lawrence-Haverhill, Lowell, Pittsfield, Springfield-Chicopee-Holyoke, and Worcester.

d. Highway: The major highways serving the Commonwealth can best be described as those routes emanating from Boston and vicinity like the spokes of a wheel, or ribs of a fan, strengthed by 2 arcs of radials supporting the ribs or spokes. Listed counter-clockwise: I-95 northeasterly to Maine, I-93 and US-3 to New Hampshire, the cross-state routes-State 2 (to New York), US-20 (to the Pacific Ocean in Oregon), State 9 (to Pittsfield, Mass.), I-90, the Massachusetts Turnpike, (to Seattle, Washington), and the southern route I-95 (to Florida), State 24 (to I-195 in Fall River) and State 3 (to Cape Cod). I-91 passes north to south through the Connecticut River Valley intersecting with I-90, State 9, U.S. 20 and State 2 and on to connect with Canadian Route 10 to Montreal. The circumferential highways are Routes 128 and 495.

e. Rail: The State is served by 3 Class I railroads - Boston and Maine, Central Vermont (Canadian National) and Conrail, other railroads serving Massachusetts are the Fore River, Grafton and Upton, and Providence and Worcester.

Piggy-Back Service is provided within the State by the Boston and Maine Railroad at Boston, Cambridge, Fitchburg, Holyoke and Worcester and by Conrail at Boston, West Springfield and Worcester.

f. Trucking: The Massachusetts Turnpike (IR 90), one of the State's cross-state routes, has 5 tandem trailer lots at Interchange #1 in West Stockbridge with State Routes 41 and 102, #6 in Chicopee with IR 291, #11 in Millbury with State Route 122, #14 in Weston with State Route 128 and #18 in Boston at the Beacon railyard in the Allston section of the city.

g. Water: The six major ports in Massachusetts with 1978 statistics from the U.S. Corps of Engineers are:

Port	Total Port Tonnage	Import Tonnage
Beverly	242,509	---
Boston	26,073,590	6,712,290
Fall River	4,820,427	1,969,260
Gloucester	214,748	125,972
New Bedford-Fairhaven	226,198	62,998
Salem	1,487,230	784,363
Remainder of State	308,145	8

Boston, the largest port, has one of the best natural, deep-water harbors in the world. It is 200 miles nearer Africa and Europe than New York City, 1,200 miles nearer Panama and the West Coast of South America than San Francisco, and nearer Rio de Janeiro and Buenos Aires than any other North Atlantic Port.

Boston is one of the leading container shipping ports in the world with equipment surpassed by none.

F. Population: The state's population increased very slowly during the seventies. The 1980 Census found only 47,867 more individuals in Massachusetts than the 1970 count. The small increase, only eight-tenths of a percentage point, was due to a low birth rate combined with substantial out-migration caused by the two recessions in the seventies. Most areas within the state showed low population growth or population declines. The exceptions were the southeastern part of the state (which showed a substantial increase) and the upper Connecticut River Valley.

In addition, the Census revealed that the state's racial distribution remained predominantly White although there have been substantial increases in the state's Nonwhite population groups. The counties of the state in which the percentage of Whites in the total population fell below 90 percent were Suffolk and Hampden, due to the large numbers of Nonwhites who live in the cities of Boston and Springfield and the outmigration of Whites from these counties. The number of individuals of Spanish origin within the state has been also increased. The Hispanic population was primarily concentrated in Suffolk and Hampden Counties (more than five percent of the population).

The Lawrence Berkeley Labs at the University of California have processed a demographic breakdown of Massachusetts' estimated population as of July 1, 1983. (Table 3). These are population estimates based on updates of the 1970 Census. Until further data is available from the 1980 Census, the Lawrence Berkeley Series represents the best information available concerning the state's population, sex, and age distribution.

G. Labor Force:

Table 4 contains estimates about the race, sex, and age makeup of the labor force in 1983. The individual units which make up the Table will be subject to substantial revisions once the labor force data from the 1980 Census becomes available. Until then, however, these numbers are our best current estimates of the labor force characteristics in 1983. We expect that there will be fewer White males over 35 years of age in the labor force in 1983 than there were in 1970. The greatest estimated numberical increases are found among White women, and the greatest percentage increases among Nonwhites.

The data on Table 5 shows all major demographic groups for which 1981 Labor Force Participation Rate Information was available. In each case, the Massachusetts group had a higher participation rate than their national counterparts. Our Labor Force Participation Rates are particularly high in comparison with those of other large industrial states.

H. 1980 Census Data

We do not yet have a complete set of data from the 1980 census. The information that is available, however, allows us to make some interesting comparisons of labor force activity in Massachusetts and other states. On Table 6, we have listed indicators for the nation, Massachusetts, the ten largest states in terms of population, and the other five New England states.

The percent of women in the labor force is higher here than it is nationally, and higher than in any of the ten largest states with the exception of North Carolina. The proportion of college graduates in the Bay State is higher than in all the other states in our comparison except for Connecticut, and about one-fifth higher than the national proportion.

The median family income in Massachusetts is just over seven percent higher than the national figure. Only five of the states we are using in our comparison had higher family incomes. Of these five, Illinois was 3.2 percent greater, Michigan - 2.6 percent and California's family income was less than one percent higher. The two states which had significantly higher family income, New Jersey with 7.0 percent and Connecticut with 8.0 percent more, were both states which benefited by the presence of many executives of large nationwide corporations who reside in these two states, although they often work in New York City. At the other extreme, the median income of the average family in North Carolina was 20 percent less than in Massachusetts, while the figure for Maine was 24 percent less than ours.

Those who wish further census information should contact:

The Center for Massachusetts Data
Executive Office of Communities and Development
100 Cambridge Street -- Room 904
Boston, Massachusetts 02202

Table 1
Total Population
Massachusetts and Counties

Area	1980 Population	1970 Population	Percent Change 1970 to 1980
Massachusetts	5,737,037	5,689,170	+ 0.8
Counties			
Barnstable	147,925	96,656	+53.0
Berkshire	145,110	149,402	- 2.9
Bristol	474,641	444,301	+ 6.8
Dukes	8,942	6,117	+46.2
Essex	633,632	637,887	- 0.7
Franklin	64,317	59,210	+ 8.6
Hampden	443,018	459,050	- 3.5
Hampshire	138,813	123,981	+12.0
Middlesex	1,367,034	1,398,397	- 2.2
Nantucket	5,087	3,774	+34.8
Norfolk	606,587	604,854	+ 0.3
Plymouth	405,437	333,314	+21.6
Suffolk	650,142	735,190	-11.6
Worcester	646,352	637,037	+ 1.5

Source: Bureau of the Census
PHC 80-V-23: 1980 Census Advance Reports

Table 2
Population by Race and Spanish Origin
Massachusetts and Counties
1980

	Total	Race										Spanish Origin	
		White		Black		American Indian Eskimo & Aleut.		Asian & Pacific Islander		Other			
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Massachusetts	5,737,037	5,362,836	93.5	221,279	3.9	7,743	0.1	49,501	0.9	95,678	1.7	141,043	2.5
Counties													
Barnstable	147,925	142,967	96.6	1,796	1.2	812	0.5	447	0.3	1,903	1.3	1,054	0.7
Berkshire	145,110	142,064	97.9	2,036	1.4	116	0.1	458	0.3	436	0.3	874	0.6
Bristol	474,641	457,376	96.4	4,795	1.0	598	0.1	1,489	0.3	10,383	2.2	10,435	2.2
Dukes	8,942	8,394	93.9	307	3.4	154	1.7	16	0.2	71	0.8	78	0.9
Essex	633,632	613,580	96.8	6,675	1.1	650	0.1	2,377	0.4	10,350	1.6	16,923	2.7
Franklin	64,317	63,541	98.8	285	0.4	81	0.1	204	0.3	206	0.3	311	0.5
Hampden	443,018	396,175	89.4	27,794	6.3	472	0.1	1,565	0.4	17,012	3.8	22,742	5.1
Hampshire	138,813	134,439	96.8	2,013	1.5	138	0.1	1,133	0.8	1,090	0.8	1,733	1.2
Middlesex	1,367,034	1,313,206	96.1	25,358	1.9	1,255	0.1	16,035	1.2	11,180	0.8	23,537	1.7
Nantucket	5,087	4,903	96.4	106	2.1	3	0.1	10	0.2	65	1.3	32	0.6
Norfolk	606,587	591,716	97.5	6,014	1.0	506	0.1	6,001	1.0	2,350	0.4	4,617	0.8
Plymouth	405,437	389,358	96.0	8,144	2.0	678	0.2	1,425	0.4	5,832	1.4	4,429	1.1
Suffolk	650,142	478,227	73.6	127,232	19.6	1,383	0.2	15,501	2.4	27,799	4.3	40,061	6.2
Worcester	646,352	626,890	97.0	8,724	1.3	897	0.1	2,840	0.4	7,001	1.1	14,217	2.2

Source: Bureau of the Census
PHC80-V-23: 1980 Census Advance Reports

Table 3
Population Composition Projected Change
Massachusetts
1970-1983

Race/Sex/Age	Population April 1, 1970	Projected Population July 1, 1983	Change 1970 to 1983 Number	Percent
TOTAL	5,689,170	5,860,001	170,831	3.0
White Male	2,621,003	2,570,513	- 50,490	- 1.9
0-15	818,386	568,223	-250,163	- 30.6
16-17	101,553	92,592	- 8,961	- 8.1
18-19	94,566	92,509	- 2,057	- 2.2
20-24	203,459	251,456	47,997	23.6
25-34	309,779	477,362	167,583	54.1
35-44	299,287	326,378	27,091	9.1
45-64	553,719	483,708	- 70,011	- 12.6
65+	240,254	278,285	38,031	15.8
White Female	2,863,354	2,857,902	- 5,452	- 0.2
0-15	786,308	538,716	-247,592	- 31.5
16-17	97,336	94,466	- 2,870	- 2.9
18-19	103,082	94,436	- 8,646	- 8.4
20-24	232,024	257,927	25,903	11.2
25-34	319,591	450,225	130,634	40.9
35-44	311,648	334,426	22,778	7.3
45-64	629,217	581,196	- 48,021	- 7.6
65+	384,148	506,510	122,362	31.9
Nonwhite Male	97,063	205,597	108,534	111.8
0-15	37,807	58,247	20,440	54.1
16-17	3,619	6,179	2,560	70.7
18-19	3,931	6,179	2,248	57.2
20-24	8,402	17,469	9,067	107.9
25-34	13,904	33,301	19,397	139.5
35-44	10,783	32,405	21,622	200.5
45-64	13,394	43,172	29,778	222.3
65+	5,223	8,645	3,422	65.5
Nonwhite Female	107,750	225,988	118,238	109.7
0-15	37,658	60,781	23,123	61.4
16-17	3,631	6,555	2,924	80.5
18-19	4,337	6,564	2,227	51.3
20-24	10,603	19,021	8,418	79.4
25-34	16,579	36,914	20,335	122.7
35-44	12,394	37,753	25,359	204.6
45-64	15,441	45,655	30,214	195.7
65+	7,107	12,745	5,638	79.3

Source: Lawrence Berkeley Labs

Table 4
Massachusetts Labor Force Projected Change
1970-1983

Race/Sex/Age	Labor Force April 1, 1970	Projected Labor Force July 1, 1983	Change 1970 to 1983 Number	Change 1970 to 1983 Percent
TOTAL	2,417,670	3,072,316	654,646	27.1
White Males	1,409,103	1,537,065	127,962	9.1
16-17	46,998	57,919	10,921	23.2
18-19	55,793	61,426	5,633	10.1
20-24	157,449	199,563	42,114	26.7
25-34	292,170	447,966	155,796	53.3
35-44	286,969	309,417	22,448	7.8
45-64	500,579	401,375	- 99,204	- 19.8
65+	69,145	59,399	- 9,746	- 14.1
White Females	932,331	1,329,016	396,685	42.5
16-17	40,475	74,061	33,586	83.0
18-19	54,234	66,105	11,871	21.9
20-24	142,197	202,608	60,411	42.5
25-34	137,716	322,404	184,688	134.1
35-44	158,079	251,981	93,902	59.4
45-64	353,830	361,444	7,614	2.2
65+	45,800	50,413	4,613	10.1
Nonwhite Males	42,978	110,425	67,447	156.9
16-17	1,097	2,701	1,604	146.2
18-19	1,877	2,857	980	52.2
20-24	6,040	12,068	6,028	99.8
25-34	11,907	28,468	16,561	139.1
35-44	9,415	28,703	19,288	204.9
45-64	11,330	34,165	22,835	201.5
65+	1,312	1,463	151	11.5
Nonwhite Females	33,258	95,810	62,552	188.1
16-17	978	3,739	2,761	282.3
18-19	1,989	3,734	1,745	87.7
20-24	5,490	10,544	5,054	92.1
25-34	7,999	21,613	13,614	170.2
35-44	6,752	24,828	18,076	267.7
45-64	8,886	29,900	21,014	236.5
65+	1,164	1,452	288	24.7

Source: Lawrence Berkeley Labs

Table 5
Labor Force Participation Rates
1981 Annual Averages

	Total	Men	Men 20 Yrs.+	Women	Women 20 Yrs.+	Both Sexes Youth 16-19 Yrs.	Whites	Blacks
United States	63.9	77.0	79.0 1/	52.1	52.1 1/	55.4	64.3	60.8
Massachusetts	66.7	78.5	80.8	56.1	55.5	60.6	66.6	71.3
U.S. Massachusetts Percentage Point Difference	+ 2.8	+ 1.5	+ 1.8	+ 4.0	+ 3.4	+ 5.2	+ 2.3	+10.5
Massachusetts Ranking Among The States 2/	16th 3/	24th	19th	13th 4/	12th	18th 5/	17th	3rd 6/
Alabama	58.3	71.2	74.4	47.0	47.6	44.3	60.1	52.9
Alaska	71.5	82.7	85.7	60.4	61.4	53.6	74.3	85.5
Arizona	61.9	75.1	76.2	50.1	49.3	60.4	62.2	--
Arkansas	61.2	72.9	74.3	51.0	51.0	56.1	62.7	51.8
California	65.4	77.5	79.3	54.3	54.4	56.4	65.8	62.9
Colorado	70.2	83.3	85.4	58.0	57.5	63.6	70.2	--
Connecticut	66.5	79.2	80.7	55.1	54.8	60.9	66.2	70.3
Delaware	64.5	77.5	79.8	52.8	52.4	55.9	64.2	65.3
Florida	57.2	68.4	69.0	47.3	47.1	56.0	55.5	66.6
Georgia	64.8	77.4	79.6	53.9	54.6	52.6	65.0	63.7
Hawaii	66.7	74.9	77.9	59.5	60.3	49.2	63.5	--
Idaho	64.0	78.4	79.4	50.6	49.6	64.4	63.9	--
Illinois	65.6	79.6	81.8	53.2	53.3	55.8	66.7	58.4
Indiana	65.0	79.1	81.2	52.6	52.6	55.9	65.0	65.1
Iowa	66.0	79.6	80.5	53.5	52.7	66.8	66.3	57.3
Kansas	67.8	79.1	80.7	57.3	56.9	62.5	68.1	62.3
Kentucky	62.4	76.2	78.3	49.7	50.0	52.6	62.8	55.9
Louisiana	60.9	76.3	79.3	47.4	47.9	47.5	62.4	57.3
Maine	61.0	72.8	75.4	50.0	49.5	55.4	61.0	--
Maryland	67.8	80.2	82.7	56.6	56.7	57.3	68.4	65.1
Michigan	63.5	77.6	79.2	50.5	49.8	60.6	64.4	56.8
Minnesota	70.7	81.2	82.4	60.8	59.7	71.0	70.9	--
Mississippi	59.0	72.4	74.6	47.6	48.7	45.4	60.6	55.4
Missouri	62.8	75.2	76.5	51.9	51.7	57.6	63.3	57.9
Montana	66.1	80.1	82.4	52.5	51.9	58.3	66.5	--
Nebraska	67.0	80.7	82.1	54.7	54.2	64.7	67.0	--
Nevada	73.1	84.5	85.6	61.8	61.7	67.8	72.6	81.2
New Hampshire	68.6	80.9	82.2	57.5	56.8	64.7	68.5	--
New Jersey	63.5	77.5	80.3	51.0	51.2	51.5	63.2	64.5
New Mexico	61.3	74.2	76.9	49.3	49.6	50.6	61.8	--
New York	59.8	73.3	76.4	48.2	48.6	45.1	60.0	58.8
North Carolina	66.8	78.6	81.0	56.2	57.1	52.5	68.0	61.7
North Dakota	65.8	79.0	80.7	53.1	52.4	62.4	66.2	--
Ohio	63.5	77.9	80.0	50.5	50.3	55.6	63.9	59.3
Oklahoma	63.7	78.4	79.4	50.0	50.1	59.4	64.3	56.3

Table 5
Labor Force Participation Rates
1981 Annual Averages
(continued)

	Total	Men	Men 20 Yrs.+	Women	Women 20 Yrs+	Both Sexes Youth 16-19 Yrs.	Whites	Blacks
Oregon	67.0	79.0	80.5	55.3	55.0	61.3	67.1	--
Pennsylvania	60.2	74.7	76.5	47.5	47.2	54.6	60.8	53.6
Rhode Island	65.5	78.7	79.1	54.1	53.3	70.2	65.5	--
South Carolina	62.9	75.5	78.6	52.2	53.9	43.1	64.3	61.7
South Dakota	67.6	79.5	81.0	57.0	56.7	62.8	68.2	--
Tennessee	61.5	74.1	76.1	50.4	51.1	49.8	61.7	60.2
Texas	67.0	81.0	83.1	53.9	54.4	56.7	67.1	66.5
Utah	65.4	80.9	82.0	50.8	49.3	68.1	65.5	--
Vermont	67.6	80.1	81.3	56.1	56.0	62.8	67.6	--
Virginia	65.8	78.3	81.0	54.9	55.3	52.4	66.2	64.4
Washington	63.9	76.7	78.2	52.0	51.6	59.0	64.0	--
West Virginia	54.1	69.7	72.2	39.9	40.2	42.6	54.0	--
Wisconsin	67.5	79.6	81.2	56.3	55.3	65.7	67.9	--
Wyoming	72.1	84.2	86.3	59.7	59.5	62.7	72.1	--

1/ Derived by subtracting youth from total.

2/ From highest to lowest

3/ Tied with Hawaii

4/ Tied with Vermont

5/ Tied with Michigan

6/ Data available for only 30 States

Source: Draft copy, Geographic Profile of Employment and Unemployment - 1981

Table 6
Selected Statistics From the 1980 Census

	1980 Population (in 000's)	Percent Foreign Born	Percent Nonenglish Speakers	Percent Women in Labor Force	Percent College Graduates	Percent Families Below Poverty Income	Median Family Income
United States	226,505	6.2	10.9	50.0	16.3	9.6	$19,908
Massachusetts	5,737	8.4	13.0	52.9	20.0	7.7	21,329
Ten Largest States							
California	23,669	14.8	22.5	52.4	19.8	8.6	21,479
Florida	9,740	10.9	13.1	46.6	14.7	9.5	17,558
Illinois	11,418	7.3	11.8	51.2	14.5	8.6	22,007
Michigan	9,258	4.4	6.7	48.4	15.2	8.5	21,886
New Jersey	7,364	10.3	15.7	50.3	18.6	7.8	22,830
New York	17,557	13.4	19.3	48.0	18.7	10.9	20,385
North Carolina	5,874	1.5	2.6	55.0	13.4	11.2	17,042
Ohio	10,797	2.7	5.1	48.5	14.8	8.2	20,710
Pennsylvania	11,867	3.6	6.9	45.4	13.8	7.6	20,259
Texas	14,228	6.0	22.2	51.2	16.0	11.3	19,372
New England States							
Connecticut	3,108	8.5	14.2	53.6	21.2	6.6	23,038
Maine	1,125	3.8	11.4	47.9	14.0	9.7	16,208
New Hampshire	921	4.2	10.3	54.7	18.4	6.2	19,796
Rhode Island	947	8.8	16.5	53.0	15.3	7.9	19,441
Vermont	511	4.2	6.8	52.4	19.5	8.3	17,549

Source: Census Report PHC 80-51-1

III. Economic Development and Outlook Through Federal Fiscal Year 1983

In this section we will give a brief review of Massachusetts' employment trends during the past dozen years. Also, we will present our latest projections for employment during Federal Fiscal Year 1982 (FFY '82). This latest projection was prepared in October 1982, and it differs markedly from our previously published projections which appear in Section I of this report. The data for the review and the projections are presented in six tables:

Table 7 gives the Current Employment Series (CES-790) data on employment for calendar years 1980 and 1981, and the monthly figures for January to June 1982.

Table 8 has CES data on the state's employment for the years 1970 through 1981.

Table 9 shows the percent distribution of the state's nonagricultural wage and salary employment by industry from 1970 through 1981. This percentage distribution data should be seen in the context of Table 8. Over the twelve years, nonagricultural wage and salary employment increased by 410,600. A given industry's annual average employment could have increased during the dozen years, and at the same time that industry's percentage share of total employment could have declined. For an industry to have retained the same percentage share of total state nonagricultural employment, its job rolls would have to have grown by 18.3 percent since 1970, or by 16.8 percent since the recessionary low of 1975.

Table 10 lists the state's private industrial employment levels from 1976 to 1981, and the relative share (by percent) of each industry's subsectors. In certain cases, sharp year-to-year differences are due to coding changes.

Table 11 presents projections for the state's employment levels by industry through Federal Fiscal Year 1983. These projections are based on the October 1982 forecast of the Massachusetts Economic Policy Analysis (MEPA) model done by George A. Treyz and Roy E. Williams at the University of Massachusetts, Amherst campus. The MEPA model is "driven" by the national forecasting model of Data Resources Incorporated (DRI), Lexington, Massachusetts. We in the Labor Area Research Department have adjusted some of the employment totals.

Table 12 illustrates, by industry, the Bay State's percentage share of the nation's manufacturing employment for FFY '81 through FFY '83. This information is taken from the October MEPA model forecast. The national manufacturing projections on which these percentages are based are from the DRI national model.

Economic Review

During the last dozen years there have been great changes in the Massachusetts economy. The most important changes have been the growth of high technology manufacturing 1/, wholesale and retail trade, services, and government.

Manufacturing is somewhat less important to our economy today than it was in 1970. This is due to the absolute and relative decline in nondurable goods employment. While in 1970 about one in every seven nonagricultural wage and salary workers in Massachusetts worked in a nondurable goods manufacturing industry, in 1981 fewer than one in ten did. Not one nondurable goods manufacturing industry has as high a share of total nonagricultural employment now as it did in 1970. Durable goods manufacturing, on the other hand, has increased both relatively and absolutely since 1970. The largest increases have been shown by nonelectrical machinery, electrical machinery, transportation equipment and instruments - all largely involved in producing high technology products 1/. Manufacturing should continue to employ about one-quarter of the state's nonagricultural workforce. The durable goods sector should hold its own, while the nondurable goods industries continue their decline.

The nonmanufacturing industries also present a varied picture. Construction employment has declined in both absolute and relative terms since 1970. Over the same dozen years, transportation and public utilities, and wholesale and retail trade have seen their workforces increase, while their share of total employment decreased. Only services, government, and finance, insurance and real estate have had absolute and relative growth. The services sector has had the greatest increase. It went from 19.6 percent of the nonagricultural workforce in 1970, to 25 percent in 1981. After the closure of several U.S. government facilities in the early seventies, Federal employment remained fairly steady for the rest of the decade. State and local government grew by nearly 120,000 jobs from 1970 to 1978. Since 1978 there has been a steady decrease in government job rolls. At first, the decline was mostly due to attrition. For the last eighteen months, however, Federal cutbacks in nondefense expenditures, and the effects of Proposition 2½ have caused fairly large cutbacks in government employment. These declines are continuing.

Economic Outlook

Last year we said that the three most important considerations forus in Massachusetts would be: 1) the trend of the national recession and how it would effect local employment, 2) growth prospects for the high technology manufacturing industries 1/, and 3) the affects of government cuts. The first two will be influenced by the worldwide recession. Less important considerations would be energy costs and the inflation rate. The same will hold true for FFY '83.

The national recession has lasted longer than many had anticipated. During the past year, it has hurt us here in Massachusetts far worse than we had expected, given the strength of our local economy in FFY '80 and FFY '81. We foresee six very slow months starting FFY '83, with a moderate recovery during the last two quarters. Our high technology manufacturing sector 1/ suffers not only from the depressed domestic market, but also because there is a recession in Europe. Many high tech manufacturers export a substantial portion of their goods. The appreciation of the dollar against most major foreign currencies has just made an already bad situation worse. Although there have been layoffs in this sector, most firms are relying on attrition to reduce their job rolls. Not much relief can be expected until the national and European economies start expanding again. Even then we do not foresee the high tech sector experiencing the same high rates of growth as it had in the late seventies. Finally, there have been cutbacks at all levels of government. The number of local government employees alone has gone down by over 30,000 during the last two years. We look for the local government decline to have bottomed out, but we expect further drops in Federal and state employment.

We are now forecasting that nonagricultural wage and salary employment will average about 2,639,000 during FFY '83. This will be an increase of only 11,000 from FFY '82, and still well under the levels recorded in FFY '81. Further declines in manufacturing, government, and transportation and public utilities will offset gains by the trade, finance, and services sectors.

Summarizing Employment Trends by Industry:

Durable Goods Manufacturing

Lumber (24) and Furniture (25): These industries are particularly hard hit by the recession. The continued lack of new housing starts is coupled with slow demand for both household and office furniture. We expect that employment in these industries will go down in FFY '83, but not as significantly as in FFY '82.

Stone, Clay and Glass (32): The number of jobs in this industry is declining across the country. Locally, there have recently been layoffs. We don't expect a turnaround next year. The implementation of the bottle bill in January 1983 will have some impact, but there doesn't seem to be much agreement whether it will be good or bad for employment.

Primary Metals (33): This is another example of an industry which is losing employment nationwide. The decline here will not be as great as elsewhere because most of our metal processing is nonferrous, which isn't as badly hurt as ferrous processing during most recessions.

Fabricated Metals (34): A job loss of 5-6 percent is expected. The ordnance sector of this industry should still do well.

Nonelectrical Machinery (35): Industry wide there will be a loss, probably in excess of 3,000 workers. The recently announced cutbacks at G.E. in Pittsfield alone will mean a job loss of over 500. One stabilizing factor should be the office and computing machine sector (SIC 357). When times are hard, such as now, this sector isn't hit as hard as most, and when economic conditions are good, this sector does better than most others. Since we anticipate that the economy will rebound somewhat during the last half of FFY '83, we look for office and computing machine companies to start expanding again.

Electrical Machinery (36): We expect this industry will add a couple of thousand jobs next year. Although this growth is small compared to some earlier years, it stands in vivid contrast to the declines throughout the rest of manufacturing. Electronic Components (SIC 367) is the strength of this industry.

Transportation Equipment (37): The production of guided missles and space vehicles, which accounts for about one-third of Transportation Equipment employment, is the only sector that we expect to expand. The production of motor vehicle equipment, about one-sixth of the industry, looks to be particularly slow.

Instruments (38): A small decline is expected. The strength of the measuring and controlling (SIC 382), photographic equipment (SIC 386), and medical (SIC 384) instruments sectors are the most important factors.

Nondurable Goods Manufacturing

Food (20): A 3 or 4 percent employment loss is anticipated which is about what is happening nationally.

Textiles (22): A small decrease. Textile furnishings (SIC 226) the most important sector, will only rebound when the national economy starts expanding.

Apparel (23): This is another industry which we can't expect to see doing well until there's been a turnaround in the national economy.

Paper (26): This industry has been heavily automated, so we would probably have seen a small drop in employment regardless of the recession. As it is, the current recession hasn't hurt this industry in Massachusetts more than it has nationally. In fact, some Western producers have been much harder hit than our New England firms. If there is growth in this industry, it will probably be in converted paper products (SIC 264).

Printing and Publishing (27): There will be a loss of jobs in this industry, but it will be caused more by automation than by the national recession.

Chemicals (28): Stable employment is expected. Synthetic materials (SIC 282) is benefiting from the comparative stability in oil prices.

Rubber and Miscellaneous Plastic Products (30): A small decline is anticipated. About three-quarters of employment in this industry is now in Miscellaneous Plastic Products.

Leather (31): We foresee a drop in employment of approximately 8 percent. Footwear still accounts for most of the employment in this industry. There is a bill before Congress to restrict the importation of foreign shoes.

Nonmanufacturing

Construction: We expect that employment in FFY '83 will be roughly the same as in FFY '82. The picture this industry presents is varied, and somewhat confusing. Commercial construction has been the mainstay of this industry in Massachusetts for several years. Because of the length of the national recession, a slowing of the pace in commercial construction has to be expected. It is quite possible, however, that the large number of commercial projects already underway could see us through until there is a general economic recovery. Residential building activity in the state has been very slow for several years. If the recent drop in interest rates continues, however, residential construction could become a growth sector despite the general economic conditions.

Transportation, Communications and Public Utilities: A loss of about 3,000 jobs is expected. Passenger transit and trucking are usually impacted during a recession. These sectors will account for the greater part of the loss, while attritions by telephone, electric and gas companies will cause most of the rest of the decline.

Wholesale and Retail Trade: Although we expect that employment will increase by over 10,000 jobs, the picture isn't entirely rosy. Part of the increase will be due to a change in the mix of jobs from full-time to part-time. It is therefore possible that the number of jobs will increase while there could be little change in the number of hours worked. Another consideration is that many of the jobs in retail trade are not particularly well paying.

Finance, Insurance and Real Estate: Employment has been increasing steadily since 1976, and we expect this trend to continue. Banking has had the largest numerical increase in jobs, while the greatest percentage increase was in Security and Commodity Brokers (SIC 62). The depressed housing market which has hurt real estate brokers so badly should rebound if interest rates continue their recent decline. Within this sector, there may be a reduction in the number of establishments due to acquisitions and mergers.

Services: These industries have shown consistent overall growth for the last ten years. We foresee an increase of 10,000 jobs in FFY '83. Business services will probably continue to register the largest percentage gains. Private child day care and job training will also have relatively large increases, although neither is a particularly large sector. The state has passed a "cost containment" type bill which should somewhat slow the growth of employment in health services, particularly hospitals. This will reinforce a trend of several years standing for employment in hospitals to grow more slowly than health services as a whole.

Government: Employment, overall, will continue to decline, although at nowhere near the rate of decline that we have experienced in recent years. Federal and local employment will hopefully stabilize. This would be a welcome change after the significant budgetary cuts and layoffs of last year and those that are presently occurring. However, the effects of the budget cuts have not completely worked their way through state service. We expect a loss of 2,000-3,000 state jobs next year, mostly due to attrition.

Table 7
Employment in Massachusetts 1980-1982
(in 000's)

	Annual Average 1980	Annual Average 1981	January 1982	February 1982	March 1982	April 1982	May 1982	June 1982	January-June 1982 6 Month Average *
Nonagricultural - Total	2652.2	2654.1	2576.8	2589.4	2606.3	2625.1	2641.3	2642.6	2613.6
Manufacturing	674.9	666.8	650.0	644.5	642.5	639.2	640.0	640.2	642.7
Durable Goods	411.3	409.9	401.4	398.0	396.5	394.8	395.7	392.7	396.5
Lumber & Furniture	13.3	13.1	12.1	11.8	11.8	11.8	11.8	12.0	11.9
Stone, Clay & Glass	13.1	12.8	12.0	11.8	11.9	12.1	12.4	12.5	12.1
Primary Metals	17.5	17.1	16.5	16.3	16.2	15.8	15.6	15.4	16.0
Fabricated Metals	53.4	51.0	49.7	49.1	49.0	47.9	47.6	47.2	48.3
Nonelectrical Machinery	109.6	109.9	108.6	107.9	107.2	106.4	105.5	105.2	106.8
Electrical Machinery	110.5	111.3	111.4	111.3	111.0	111.6	111.0	110.9	111.2
Transportation Equipment	35.4	33.4	31.4	31.3	31.3	31.3	34.0	30.8	31.7
Instruments	58.5	61.3	59.7	58.5	58.1	57.9	57.8	58.7	58.5
Nondurable Goods	263.6	256.9	248.6	246.5	246.0	244.4	244.3	247.5	246.2
Food & Kindred Products	27.4	25.2	25.4	24.9	24.9	24.6	25.0	25.6	25.1
Textile Mill Products	25.6	24.5	22.2	21.9	22.0	22.0	22.0	21.8	22.0
Apparel & Other Textile Prod.	39.8	39.3	37.9	37.8	37.4	37.2	37.2	37.5	37.5
Paper & Allied Products	28.2	27.1	26.6	26.2	25.7	26.2	26.0	26.3	26.2
Printing & Publishing	44.1	44.9	44.6	44.5	44.3	43.7	43.8	44.4	44.2
Chemicals	18.4	18.5	18.0	17.9	17.9	17.7	17.6	18.0	17.9
Rubber & Miscellenous Plastics	30.6	29.1	28.4	28.5	28.6	28.3	28.2	28.8	28.5
Leather & Leather Products	21.4	20.7	19.2	19.0	18.9	19.0	18.9	19.3	19.1
Other Nondurables	28.1	27.6	26.3	25.8	26.3	25.7	25.6	25.8	25.9
Nonmanufacturing	1977.3	1987.3	1926.8	1944.9	1963.8	1985.9	2001.3	2002.4	1970.9
Construction	77.4	78.3	67.5	66.0	69.6	77.7	81.4	85.0	74.5
Transp., Comm., & Pub. Util.	121.6	119.8	116.7	116.3	116.9	117.7	118.9	119.8	117.7
Wholesale & Retail Trade	574.5	575.1	568.9	562.9	566.6	574.4	579.8	588.5	573.5
Fin., Insurance & Real Estate	159.0	164.0	164.4	164.1	165.2	166.2	167.5	170.5	166.3
Services, Mining & Misc.	634.5	663.6	646.0	664.2	674.2	681.2	682.2	669.7	669.6
Government	410.3	386.5	363.3	371.4	371.3	368.7	371.5	368.9	369.2
Federal	58.3	57.4	55.9	56.4	56.2	56.2	56.1	56.5	56.2
State	97.8	96.7	90.2	94.6	96.3	95.1	95.4	92.3	94.0
Local	254.2	232.4	217.2	220.4	218.8	217.4	220.0	220.1	219.0

* Numbers may not add due to rounding.

Source: Current Employment Series - ES-790

Table 8
Nonagricultural Wage and Salary Employment in Massachusetts
Calendar Years 1970-1981
(in 000's)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Nonagricultural - Total	2243.5	2211.4	2251.7	2333.5	2353.7	2273.1	2323.5	2416.0	2526.3	2603.5	2652.2	2654.1
Manufacturing	648.2	605.7	610.2	634.7	639.3	577.8	593.6	621.0	652.1	672.1	674.9	666.8
Durable Goods	336.5	312.8	314.8	339.9	354.7	318.9	325.8	352.3	378.9	401.1	411.3	409.9
Lumber and Furniture	15.4	14.9	15.4	16.0	15.3	12.8	13.1	13.6	14.0	13.9	13.3	13.1
Stone, Clay and Glass	12.6	12.2	12.7	14.2	15.0	10.9	12.1	12.3	13.1	13.7	13.1	12.8
Primary Metals	16.8	14.1	14.0	16.2	17.3	15.5	16.1	16.9	17.1	17.6	17.5	17.1
Fabricated Metals	53.5	51.2	52.2	56.1	57.2	49.2	50.4	51.8	53.2	55.1	53.4	51.0
Nonelectrical Machinery	68.7	64.9	66.0	73.1	78.5	74.0	74.0	82.0	90.4	101.6	109.6	109.9
Electrical Machinery	93.2	82.5	81.6	88.1	93.7	82.8	83.8	91.0	98.3	104.6	110.5	111.3
Transportation Equipment	37.1	34.9	34.3	33.2	30.5	30.0	31.2	33.2	36.4	37.1	35.4	33.4
Instruments	39.2	38.1	38.6	43.0	47.2	43.7	45.1	51.5	56.4	57.5	58.5	61.3
Nondurable Goods	311.7	292.9	295.4	294.8	284.6	258.9	267.8	268.7	273.2	271.0	263.6	256.9
Food and Kindred Products	34.6	33.4	33.1	31.5	30.4	28.6	29.5	29.1	28.5	28.2	27.4	25.2
Textile Mill Products	32.8	30.4	31.0	31.1	28.7	25.2	27.7	27.9	28.2	27.1	25.6	24.5
Apparel	48.3	46.0	45.9	45.8	44.2	41.1	43.2	42.8	42.1	40.7	39.8	39.3
Paper and Allied Products	34.7	32.3	32.2	33.2	32.6	27.9	28.9	29.4	30.4	29.8	28.2	27.1
Printing and Publishing	45.7	43.2	43.9	43.5	42.0	40.3	41.0	42.2	42.9	44.0	44.1	44.9
Chemicals	21.1	20.1	19.5	20.3	20.9	19.8	18.4	17.3	17.7	18.2	18.4	18.5
Rubber & Miscellaneous Plastic Products	33.0	30.7	32.2	34.6	33.7	27.8	29.6	30.3	32.1	32.5	30.6	29.1
Leather and Leather Products	34.4	30.4	30.4	26.8	24.1	23.0	24.1	22.8	23.5	22.2	21.4	20.7
Other Nondurables & Miscellaneous Mfg.	27.1	26.4	27.2	28.0	28.0	25.2	25.4	26.9	27.8	28.3	28.1	27.6
Nonmanufacturing	1595.3	1605.7	1641.5	1698.8	1714.4	1695.3	1729.9	1795.0	1874.2	1931.4	1977.3	1987.3
Construction	97.7	99.3	103.3	102.7	90.6	74.2	67.1	66.7	72.8	75.6	77.4	78.3
Transportation, Communications, & Pub. Util.	117.4	117.1	121.5	123.5	123.6	113.7	112.8	114.9	117.3	120.5	121.6	119.8
Wholesale and Retail Trade	492.6	498.0	501.5	517.0	520.5	511.8	520.2	533.7	547.3	566.3	574.5	575.1
Finance, Insurance & Real Estate	127.1	127.5	128.8	133.7	136.9	135.8	137.8	143.2	146.7	150.4	159.0	164.0
Services, Mining and Miscellaneous	440.6	433.2	443.3	470.3	488.5	494.7	516.2	528.6	560.9	601.9	634.5	663.6
Government	319.9	330.6	343.1	351.6	354.3	365.1	375.8	407.9	429.2	416.7	410.3	386.5
Federal	65.0	62.3	64.4	61.9	58.3	58.0	57.8	56.5	57.4	58.0	58.3	57.4
State and Local	254.9	268.3	278.7	289.7	296.0	307.1	318.0	351.4	371.8	358.7	352.0	329.1

Source: Current Employment Series, ES-790
Note: Numbers may not add due to rounding

Table 9
Nonagricultural Wage and Salary Employment in Massachusetts
Calendar Years 1970-1981
Percent Distribution

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Nonagricultural - Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Manufacturing	28.89	27.39	27.10	27.20	27.16	25.42	25.55	25.70	25.81	25.82	25.45	25.12
Durable Goods	15.00	14.15	13.98	14.57	15.07	14.03	14.02	14.58	15.00	15.41	15.51	15.44
Lumber and Furniture	0.69	0.67	0.68	0.69	0.65	0.56	0.56	0.56	0.55	0.53	0.50	0.49
Stone, Clay and Glass	0.56	0.55	0.56	0.61	0.64	0.48	0.52	0.51	0.52	0.53	0.49	0.48
Primary Metals	0.75	0.64	0.62	0.69	0.74	0.68	0.69	0.70	0.68	0.68	0.66	0.64
Fabricated Metals	2.39	2.32	2.32	2.40	2.43	2.16	2.17	2.14	2.11	2.12	2.01	1.92
Nonelectrical Machinery	3.06	2.94	2.93	3.13	3.34	3.26	3.18	3.39	3.58	3.90	4.13	4.14
Electrical Machinery	4.15	3.73	3.62	3.78	3.98	3.64	3.61	3.77	3.89	4.02	4.17	4.19
Transportation Equipment	1.65	1.58	1.52	1.42	1.30	1.32	1.34	1.37	1.44	1.43	1.33	1.26
Instruments	1.75	1.72	1.71	1.84	2.01	1.92	1.94	2.13	2.23	2.21	2.21	2.31
Nondurable Goods	13.89	13.25	13.12	12.63	12.09	11.39	11.53	11.12	10.81	10.41	9.94	9.68
Food and Kindred Products	1.54	1.51	1.47	1.35	1.29	1.26	1.27	1.20	1.13	1.08	1.03	0.95
Textile Mill Products	1.46	1.38	1.38	1.33	1.22	1.11	1.19	1.15	1.12	1.04	0.97	0.92
Apparel	2.15	2.08	2.04	1.96	1.88	1.81	1.86	1.77	1.67	1.56	1.50	1.48
Paper and Allied Products	1.55	1.46	1.43	1.42	1.39	1.23	1.24	1.22	1.20	1.14	1.06	1.02
Printing and Publishing	2.04	1.95	1.95	1.86	1.78	1.77	1.76	1.75	1.70	1.69	1.66	1.69
Chemicals	0.94	0.91	0.87	0.87	0.89	0.87	0.79	0.72	0.70	0.70	0.69	0.70
Rubber & Miscellaneous Plastic Products	1.47	1.39	1.43	1.48	1.43	1.22	1.27	1.25	1.27	1.25	1.15	1.10
Leather and Leather Products	1.53	1.38	1.35	1.15	1.02	1.01	1.04	0.94	0.93	0.85	0.81	0.78
Other Nondurables & Miscellaneous Manufacturing	1.21	1.19	1.21	1.20	1.19	1.11	1.09	1.11	1.10	1.09	1.06	1.04
Nonmanufacturing	71.11	72.61	72.90	72.80	72.84	74.58	74.45	74.30	74.19	74.18	74.55	74.88
Construction	4.36	4.49	4.59	4.40	3.85	3.26	2.89	2.76	2.88	2.90	2.92	2.95
Transportation, Communications & Public Utilities	5.23	5.30	5.40	5.29	5.25	5.00	4.85	4.76	4.64	4.63	4.58	4.51
Wholesale and Retail Trade	21.96	22.52	22.27	22.16	22.11	22.52	22.39	22.09	21.66	21.75	21.66	21.67
Finance, Insurance and Real Estate	5.67	5.77	5.72	5.73	5.82	5.97	5.93	5.93	5.81	5.78	6.00	6.18
Services, Mining and Miscellaneous	19.64	19.59	19.69	20.15	20.75	21.76	22.22	21.88	22.20	23.12	23.92	25.00
Government	14.26	14.95	15.24	15.07	15.05	16.06	16.17	16.88	16.99	16.01	15.47	14.56
Federal	2.90	2.82	2.86	2.65	2.48	2.55	2.49	2.34	2.27	2.23	2.20	2.16
State and Local	11.36	12.13	12.38	12.41	12.58	13.51	13.69	14.54	14.72	13.78	13.27	12.40

Numbers may not add due to rounding

Table 10
Massachusetts Private Industrial Employment
and
Percent Distribution of Subsectors 1/
1976-1981

		1976	1977	1978	1979	1980	1981
	Manufacturing	593,600	621,100	652,100	672,100	674,900	666,800
20	Food & Kindred Products	29,500	29,100	28,500	28,200	27,400	25,200
201	Meat Products	10.0%	9.3%	10.4%	10.9%	10.7%	10.1%
202	Dairy Products	18.5	18.0	16.4	18.1	18.6	19.5
203	Preserved Fruits and Vegetables	5.1	5.9	6.8	5.2	5.9	5.8
204	Grain Mill Products	1.8	1.8	2.3	1.8	1.7	2.1
205	Bakery Products	23.1	21.4	20.0	19.3	17.9	18.3
206	Sugar & Confectionary Prod.	13.1	14.6	13.5	13.8	14.9	13.0
207	Fats and Oil	1.2	1.2	1.2	1.2	1.2	1.0
208	Beverages	10.3	10.3	10.0	9.0	8.6	9.0
209	Misc. Food & Kindred Prod.	17.0	17.5	19.5	20.6	20.7	21.2
22	Textile Mill Products	27,700	27,900	28,200	27,100	25,600	24,500
221	Weaving Mills, Cotton	1.5%	1.6%	1.7%	1.1%	1.7%	1.6%
222	Weaving Mills, Synthetics	11.6	13.0	14.2	15.6	14.5	14.2
223	Weaving Mills, Wool	8.3	8.6	8.7	8.8	7.6	8.6
224	Narrow Fabric Mills	6.1	4.9	5.1	5.4	5.2	5.4
225	Knitting Mills	20.0	21.7	22.7	23.4	20.7	17.3
226	Textile Furnishings, exc. Wool	23.0	21.4	21.6	19.7	20.7	21.7
227	Floor Covering Mills	0.4	0.4	0.4	0.5	0.5	0.5
228	Yarn and Thread Mills	7.7	8.0	7.4	7.2	7.4	7.8
229	Misc. Textile Goods	21.5	20.2	18.1	18.3	21.7	22.8
23	Apparel	43,200	42,800	42,100	40,700	39,800	39,300
231	Men's & Boys' Suits & Coats	10.2%	11.8%	10.9%	11.3%	11.1%	11.2%
232	Men's & Boys' Furnishings	11.9	11.2	11.8	11.3	11.3	10.9
233	Women's & Misses" Outerwear	41.0	41.7	41.7	43.5	44.0	43.4
234	Women's & Misses' Undergarments	7.0	7.4	7.3	7.2	7.2	7.1
235	Hats, Caps, & Millinery	1.1	1.0	0.8	0.7	0.7	0.7
236	Children's Outerwear	3.4	3.1	2.9	1.9	1.5	1.7
238	Misc. Apparel & Accessories	7.1	7.1	7.2	7.3	7.0	7.0
239	Misc. Fabricated Textiles	18.2	16.8	17.5	16.8	17.2	17.8
24 & 25	Lumber and Furniture	13,100	13,600	14,000	13,900	13,300	13,100
241	Logging Camps	0.4%	0.3%	0.7%	0.7%	0.8%	0.7%
242	Sawmills & Planing Mills	4.9	4.9	5.1	5.9	5.8	5.6
243	Millwork, Veneer, Plywood etc.	9.3	9.5	9.5	10.3	11.1	11.6
244	Wood Containers	4.9	5.1	4.6	4.9	4.8	4.7
245	Wood Buildings & Mobile Homes	1.7	1.8	1.7	1.1	1.1	1.1
249	Misc. Wood Products	14.5	17.5	16.6	16.1	15.5	16.8
251	Household Furniture	51.8	48.6	46.9	43.3	41.3	39.9
252	Office Furniture	0.3	0.4	3.5	5.1	6.2	6.5
253	Public Building Furniture	1.6	1.4	1.5	1.5	1.9	1.8
254	Partitions, Shelving, etc.	8.9	8.7	8.5	8.5	9.6	9.3
259	Misc. Furniture & Fixtures	1.6	1.7	1.4	1.8	1.9	2.0
26	Paper and Allied Products	28,900	29,400	30,400	29,800	28,200	27,100
262	Paperboard Mills exc. Bldg. Paper	22.4%	21.4%	21.5%	20.7%	20.7%	20.7%
263	Paperboard Mills	4.3	4.3	4.3	4.3	3.7	2.6
264	Misc. Converted Paper Prod.	42.9	43.9	44.7	45.2	45.5	46.2
265	Paperboard Containers & Boxers	30.3	30.2	28.9	29.2	29.6	30.1
266	Building Paper & Board Mills	2/	2/	0.6	0.6	0.4	0.5

Table 10
Massachusetts Private Industrial Employment
and
Percent Distribution of Subsectors 1/
1976-1981
(continued)

		1976	1977	1978	1979	1980	1981
27	Printing, Publishing and Allied Products	41,000	42,200	42,900	44,000	44,100	44,900
271	Newspapers	31.7%	31.5%	31.3%	30.7%	30.1%	29.7%
272	Periodicals	3.3	3.6	4.1	3.7	3.7	5.0
273	Books	14.9	13.4	12.8	13.9	13.5	13.4
274	Miscellaneous Publishing	1.9	2.0	1.9	1.8	2.1	2.1
275	Commercial Printing	30.2	31.2	31.3	32.3	33.0	33.2
276	Manifold Business Forms	1.2	1.4	1.4	1.5	1.4	1.4
277	Greeting Cards	3.1	3.4	3.1	2.5	2.4	1.6
278	Blankbooks and Bookbinding	11.1	11.2	12.0	11.6	11.4	11.2
279	Printing Trade Services	2.6	2.4	2.1	2.3	2.4	2.5
28	Chemicals & Allied Products	18,400	17,300	17,700	18,200	18,400	18,500
281	Industrial Inorganic Chemicals	6.4%	5.6%	7.0%	5.6%	5.6%	6.9%
282	Plastic Materials & Synthetics	31.8	32.8	30.8	30.9	31.2	30.1
283	Drugs	11.3	11.9	12.9	14.8	14.8	15.3
284	Soap, Cleaners & Toilet Goods	18.3	17.9	17.3	16.3	15.1	14.8
285	Paints & Allied Products	7.0	6.6	7.1	7.2	7.7	7.7
286	Industrial Organic Chemicals	2.7	2.8	3.1	2.9	3.1	2.9
287	Agricultural Chemicals	2.1	2.1	2.2	2.2	2.1	2.0
289	Miscellaneous Chemicals Prod.	20.4	20.1	19.6	20.0	20.4	20.3
30	Rubber & Misc. Plastic Prod.	29,600	30,300	32,100	32,500	30,600	29,100
301	Tires & Inner Tires	6.6%	7.8%	7.1%	6.0%	4.1%	1.5%
302	Rubber & Plastic Footwear	7.2	3.0	2.1	3.6	3.3	3.3
304	Rubber & Plastic Hose and Belting	0.1	0.1	0.1	0.3	2.0	1.9
306	Fabricated Rubber Prod. n.e.c.	23.0	22.1	22.0	23.2	19.5	19.7
307	Misc. Plastic Products	63.1	67.3	68.7	66.9	71.1	73.6
31	Leather and Leather Products	24,100	22,800	23,500	22,200	21,400	20,700
311	Leather Tanning & Finishing	12.1%	12.1%	12.2%	11.5%	11.9%	12.4%
313	Boot and Shoe Cut Stock	11.5	11.7	11.7	16.3	14.0	14.6
314	Footwear, except Rubber	61.8	62.0	61.4	56.9	58.1	57.0
316	Luggage	1.4	1.6	1.9	1.5	1.3	1.0
317	Handbags & Personal Goods	12.3	11.4	11.7	11.9	13.0	13.6
319	Leather Goods, n.e.c.	1.3	1.2	1.1	1.7	1.7	1.3
32	Stone, Clay & Glass Products	12,100	12,300	13,100	13,700	13,100	12,800
321	Flat Glass	0.3%	0.5%	0.6%	0.5%	0.5%	0.5%
322	Glass & Glassware, Pressed or Blown	10.1	11.3	10.9	10.1	9.2	10.0
323	Products of Purchased Glass	3.0	2.9	2.6	2.5	2.5	2.6
325	Structural Clay Products	1.7	1.2	1.0	1.4	1.6	1.7
326	Pottery & Related Products	2.3	2.2	1.5	1.3	1.5	1.6
327	Concrete Gypsum & Plastic Prod.	22.3	20.8	21.2	21.3	21.8	21.1
328	Cut Stone & Stone Products	4.8	4.5	3.7	2.5	2.8	2.8
329	Misc. Nonmetallic Mineral Prod.	55.4	56.6	58.4	60.3	60.1	59.7
33	Primary Metal Industries	16,100	16,900	17,100	17,600	17,500	17,100
331	Blast Furnace & Basic Steel Products	24.0%	20.8%	15.9%	15.7%	15.1%	14.5%
332	Iron & Steel Foundaries	15.1	13.4	11.5	11.1	11.5	10.7
333	Primary Nonferrous Metals	3.5	2.6	2.1	2.1	2.4	1.8
334	Secondary Nonferrous Metals	2.2	2.0	1.7	1.4	1.8	2.0
335	Nonferrous Rolling & Drawing	41.1	43.0	53.6	52.6	50.9	52.8
336	Nonferrous Foundries	9.0	11.1	10.7	12.5	13.0	12.4
339	Misc. Primary Metal Products	4.7	7.1	4.6	4.6	5.3	5.9

Table 10
Massachusetts Private Industrial Employment
and
Percent Distribution of Subsectors 1/
1976-1981
(continued)

		1976	1977	1978	1979	1980	1981
34	Fabricated Metal Products	50,400	51,800	53,200	55,100	53,400	51,000
341	Metal Cans and Containers	2.0%	2.3%	2.0%	2.1%	2.1%	2.0%
342	Cutlery, Hand Tools & Hdwre.	25.4	25.6	25.1	23.8	22.7	22.1
343	Plumbing & Heating,Nonelec.	2.4	2.2	2.5	2.6	2.9	2.9
344	Structural Metal Products	18.2	17.2	17.6	17.3	18.2	18.2
345	Screw Machine Prod., Bolts	7.4	7.4	7.2	7.3	6.9	6.4
346	Metal Forgings & Stampings	11.4	11.4	11.4	12.1	12.1	12.2
347	Metal Services n.e.c.	7.7	7.7	7.5	8.0	7.8	8.1
348	Ordnance & Accessories	9.1	9.5	9.2	9.3	10.2	10.9
349	Misc. Fabricated Metal Prod.	16.4	16.7	17.5	17.5	17.2	17.2
35	Machinery, Except Electrical	74,000	82,000	90,400	101,600	109,600	109,900
351	Engines and Turbines	8.9%	7.5%	6.6%	5.7%	5.8%	5.8%
352	Farm Machinery	2/	2/	2/	2/	2/	2/
353	Construction & Related Mach.	1.4	1.2	1.1	1.1	1.0	1.0
354	Metal Working Machinery	19.6	19.4	18.6	17.7	16.9	16.3
355	Special Industrial Machinery	20.7	19.0	18.8	17.3	15.4	14.6
356	General Industrial Machinery	10.2	9.9	9.8	8.9	8.6	8.1
357	Office, Computing & Accounting	28.9	33.0	34.8	38.5	42.1	44.2
358	Refrigeration & Service Mach.	2.6	2.7	2.6	2.5	2.3	2.3
359	Misc. Machinery exc. elec.	7.6	7.0	7.6	8.4	7.9	7.7
36	Electric & Electronic Equip.	83,800	91,000	98,300	104,600	110,500	111,300
361	Elec. Dist. Equipment	15.0%	13.1%	6.1%	5.4%	5.0%	4.5%
362	Elec. Indust. Apparatus	2.9	2.9	5.9	6.0	5.1	5.1
363	Household Appliances	1.6	1.4	1.3	1.4	1.2	1.1
364	Elec. Lighting & Wiring Equip.	9.8	10.1	10.3	10.0	7.4	7.0
365	Radio & TV Receiving Equip.	4.1	4.0	4.1	2.8	2.4	2.3
366	Communications Equipment	28.7	26.7	27.7	28.3	29.4	31.2
367	Elec. Components & Accessories	34.2	37.8	39.9	43.0	44.4	45.0
369	Misc. Elec. Equip. & Supplies	3.7	4.0	4.7	5.1	5.2	3.9
37	Transportation Equipment	31,200	33,200	36,400	37,100	35,400	33,400
371	Motor Vehicles Equipment	14.7%	16.7%	17.3%	17.0%	17.8%	17.3%
372	Aircraft and Parts	25.3	25.4	25.1	27.6	29.9	31.1
373	Ship and Boat Building	21.4	19.9	22.0	20.6	17.4	16.0
375	Motorcycles, Bicycles & Parts	1.8	1.9	1.8	1.9	1.6	1.4
376	Guided Missiles & Space	36.2	35.6	33.4	32.7	32.9	33.8
379	Misc. Transportation Equip.	0.6	0.5	0.4	0.3	0.3	0.4
38	Measuring & Controlling Instruments	45,100	51,500	56,400	57,500	58,500	61,300
381	Engineering & Scientific Instruments	4.1%	5.7%	5.5%	5.7%	7.0%	6.5%
382	Measuring & Controlling Instr.	31.8	32.1	30.9	31.4	34.7	37.8
383	Optical Instr. & Lenses	10.6	10.3	9.9	10.9	10.8	11.4
384	Med. Instr. & Supplies	10.1	10.5	11.8	11.2	11.3	12.6
385	Opthalmic Goods	12.9	11.8	10.8	12.2	10.6	8.6
386	Photographic Equipment and Supplies	27.0	26.1	28.5	26.3	23.3	21.1
387	Watches, Clocks & Watch Cases	3.6	3.4	2.6	2.4	2.2	2.0
	All Other & Miscellaneous Manufacturing	25,400	26,900	27,800	28,300	28,100	27,600
21	Tobacco Manufacturing	0.3%	0.1%	2/	2/	2/	2/
29	Petroleum Refining	4.8	5.3	5.3	6.0	5.1	6.7
39	Miscellaneous Manufacturing	94.9	94.6	94.6	94.0	94.8	93.3

Table 10
Massachusetts Private Industrial Employment
and
Percent Distribution of Subsectors 1/
1976-1981
(continued)

		1976	1977	1978	1979	1980	1981
	Construction	67,100	66,700	72,800	75,600	77,400	78,300
15	General Building Contractors	24.5%	25.7%	28.7%	28.0%	28.3%	28.0%
16	Heavy Construction Contractors	18.3	18.0	11.9	10.9	10.2	10.6
17	Special Trade Contractors	57.3	57.2	59.5	61.1	61.5	61.3
	Transportation and Public Utilities	112,800	114,900	117,300	120,500	121,600	119,800
41	Passenger Transit	13.8%	13.5%	13.6%	13.7%	13.3%	13.0%
42	Trucking & Warehousing	23.8	24.4	24.9	24.3	23.1	22.8
44	Water Transportation	2.0	2.3	2.2	2.0	2.2	2.2
45	Air Transportation	7.0	7.3	7.6	8.4	8.6	8.3
47	Transportation Services	3.7	3.8	4.0	4.5	4.7	5.0
48	Communications	32.5	32.0	31.5	31.4	32.0	32.7
49	Electric, Gas & Sanitary Services	17.2	16.8	16.3	15.7	16.0	15.9
	Wholesale and Retail Trade	520,200	533,700	547,300	566,300	574,500	575,100
50	Wholesale Durable Goods	11.7%	12.0%	11.6%	12.0%	12.3%	12.2%
51	Wholesale Nondurable Goods	10.8	10.5	10.3	10.6	10.6	10.5
52	Building Materials, Hardward Mobile Homes	2.4	2.4	2.3	2.4	2.4	2.3
53	General Merchandise	10.8	10.6	10.7	10.2	10.1	9.9
54	Food Stores	14.7	14.4	13.8	13.5	13.2	13.5
55	Automotive Dealers and Gas Stations	8.0	8.0	7.9	7.3	6.9	6.7
56	Apparel & Accessories Stores	5.5	5.4	5.7	5.8	5.9	5.9
57	Furniture & Home Furnishings	2.9	2.7	2.9	2.7	2.7	2.6
58	Eating & Drinking Places	22.4	23.0	23.8	24.3	24.6	24.8
59	Miscellaneous Retail	10.8	10.8	11.2	11.2	11.4	11.5
	Finance, Insurance and Real Estate	137,800	143,200	146,500	150,400	159,000	164,000
60	Banking	33.9%	33.8%	31.4%	31.2%	31.3%	31.6%
61	Credit Agencies other than Banks	3.8	3.6	6.0	6.0	5.9	6.0
62	Security, Commodity Brokers and Services	5.2	5.2	5.2	5.3	5.6	6.2
63	Insurance Carriers	33.4	33.4	33.1	32.8	32.0	31.5
64	Insurance Agents, Brokers and Service	9.4	9.4	9.7	9.8	9.6	9.4
65	Real Estate	11.8	12.1	12.1	12.0	12.7	12.9
66	Combined Real Estate, Insurance etc.	0.9	0.9	0.9	0.8	0.7	0.7
67	Holding & Other Investment Offices	1.6	1.6	1.6	2.1	2.1	1.7
	Services Mining & Misc.	516,200	528,600	560,900	601,900	634,500	663,600
10-14	Mining	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
70	Hotels & Other Lodging Places	4.2	4.1	3.9	3.8	3.7	3.7
72	Personal Services	4.9	4.8	4.5	4.4	4.1	4.0
73	Business Services	14.8	15.4	16.2	16.9	18.0	18.7
75	Auto Repair, Services Garages	3.0	2.8	2.9	2.8	2.6	2.5
76	Misc. Repair Services	1.4	1.2	1.2	1.3	1.2	1.2
78	Motion Picutres	0.9	0.9	0.7	0.7	0.7	0.7
79	Amusement & Recreational Svc.	3.1	3.0	2.9	2.8	2.8	2.7

Table 10
Massachusetts Private Industrial Employment
and
Percent Distribution of Subsectors 1/
1976-1981
(continued)

	1976	1977	1978	1979	1980	1981
Services, Mining & Miscellaneous (continued)						
80 Health Services	37.0%	37.1%	35.0%	34.1%	34.1%	34.6%
806 Hospitals	22.0	21.9	20.6	19.8	19.7	19.6
81 Legal Services	2.2	2.3	2.2	2.2	2.2	2.3
82 Educational Services	13.2	12.9	13.9	13.4	12.9	12.7
821 Elementary and Secondary Schools	0.2	0.2	2.1	2.1	1.6	1.7
822 Colleges and Universities	12.1	12.0	11.8	10.5	10.6	10.2
83 Social Services	4.2	5.1	5.4	5.6	6.5	6.1
833 Job Training and Related	0.3	0.4	0.5	0.5	0.6	0.6
835 Child Day Care	0.5	0.6	0.7	0.7	0.8	0.8
84 Museums Botanical, Zoos	0.5	0.5	0.5	0.5	0.5	0.5
86 Membership Organizations	4.1	3.6	3.3	3.3	3.1	2.9
88 Private Households	2/	2/	0.4	0.5	0.6	0.6
89 Miscellaneous Services	6.5	6.2	7.0	7.4	6.8	6.7
891 Engineering and Architectural	3.8	3.3	4.2	4.3	3.7	3.6
892 Noncommercial Research Organizitations	1.3	1.5	1.4	1.5	1.6	1.5
893 Accounting, Auditing and Bookkeeping	1.4	1.4	1.4	1.5	1.5	1.5

1/ The industry employment totals are from the Current Employment Series (CES-790). The breakout by percent of the industry subsectors are based on the employment totals in the Employment and Wage Series (ES-202). These breakouts are intended as in indication of the relative, not the absolute, size of the subsectors.

2/ Percent was less than .05.

Source: Current Employment Series (CES-790), DES.
Employment and Wages (ES-202), DES.

Table 11
Massachusetts Projected Employment
By Industry
Federal Fiscal Years 1981-1983 1/
(in 000's)

Industry	FFY 1981	FFY 2/ 1982	FFY 3/ 1983
Nonagricultural Wage & Salary Employment-Total	2656.6	2627.1	2638.9
Manufacturing	668.0	645.5	632.6
Durable Goods	410.1	398.0	392.1
Lumber and Furniture	13.1	12.1	11.7
Stone, Clay, Glass	12.8	12.3	12.0
Primary Metals	17.2	15.9	15.2
Fabricated Metals	51.4	48.4	45.7
Nonelectrical Machinery	110.2	107.5	104.2
Electrical Machinery	110.8	111.1	113.5
Transportation Equipment	33.6	32.0	31.3
Instruments	61.0	58.8	58.5
Nondurable Goods	257.9	247.5	240.5
Food	25.6	25.4	24.6
Textiles	25.0	22.2	21.7
Apparel	39.6	37.0	35.4
Paper	27.2	26.4	25.9
Printing	44.5	44.4	43.1
Chemicals	18.4	18.0	18.0
Rubber	29.2	28.5	28.2
Leather	20.9	19.2	17.8
Other Nondurables & Miscellaneous Manufacturing	27.4	26.4	25.7
Nonmanufacturing	1988.4	1981.6	2006.3
Construction	77.8	79.7	79.4
Transportation & Public Utilities	120.3	118.0	114.7
Wholesale & Retail Trade	574.7	579.3	592.7
Finance, Insurance & Real Estate	162.5	167.1	173.1
Services and Miscellaneous	656.8	670.4	680.5
Government	396.3	367.1	365.8
Federal	57.7	56.1	56.6
State	97.7	94.9	92.4
Local	240.9	216.1	216.8

1/ Some data may not add due to rounding.
A Federal Fiscal Year begins on October 1st and ends the following September 30th.

2/ Preliminary

3/ Projected

Sources: Current Employment Series (CES-790) of the Massachusetts Division of Employment Security in cooperation with the U. S. Department of Labor, Bureau of Labor Statistics. Massachusetts Economic Policy Analysis (MEPA) Model Forecast by George Treyz and Roy Williams.

Labor Area Research Department, DES.

Table 12
Manufacturing Employment in Massachusetts
As a Percent of United States Employment
Federal Fiscal Years 1980-1983 1/

Industry	FFY 1981	FFY 1982 2/	FFY 1983 3/
Manufacturing (SIC Codes in Parentheses)	3.30	3.35	3.36
Durable Goods	3.37	3.47	3.50
Lumber (24)	0.78	0.78	0.73
Furniture (25)	1.68	1.59	1.54
Stone, Clay, Glass (32)	1.98	2.07	2.05
Primary Metals (33)	1.53	1.61	1.64
Fabricated Metals (34)	3.21	3.24	3.16
Nonelectrical Machinery (35)	4.41	4.49	4.74
Engines & Turbines (351)	4.82	4.93	4.99
Metalworking Machinery(354)	4.74	4.67	4.85
Special Industry Machinery (355)	8.02	7.96	7.88
General Industrial Machinery (356)	2.91	2.77	2.71
Office & Computing Machinery (357)	10.90	10.69	11.31
Rest of Industry Group	1.18	1.19	1.28
Electrical Machinery Equipment (36)	5.30	5.43	5.51
Electronic Components (367)	8.64	9.38	10.12
Rest of Industry Group	4.05	3.99	3.92
Transportation Equipment (37)	1.76	1.81	1.74
Motor Vehicles and Parts (371)	0.72	0.88	0.87
Aircraft and Parts (372)	1.60	1.53	1.50
Rest of Industry Group	3.77	3.66	3.47
Instruments (38)	8.42	8.21	8.30
Measuring and Controlling (382)	9.23	9.05	9.22
Rest of Industry Group	8.01	7.77	7.81
Nondurable Goods	3.20	3.16	3.16
Food	1.52	1.54	1.54
Textiles	3.01	2.88	2.86
Apparel	3.17	3.13	3.11
Paper	3.95	3.96	3.96
Printing	3.53	3.50	3.45
Chemicals	1.66	1.66	1.69
Synthetic Materials (282)	2.77	2.84	2.93
Rest of Industry Group	1.41	1.41	1.42
Rubber and Miscellaneous Plastics Products (30)	3.98	4.04	4.18
Leather (31)	8.96	8.86	8.77
Other Nondurables & Miscellaneous Manufacturing Industries	6.70	6.66	6.62

1/A Federal Fiscal Year begins on October 1st and ends the following September 30th.
2/ Preliminary
3/ Projected

Source: Massachusetts Economic Policy Analysis (MEPA) Model Forecast by George Treyz and Roy Williams.

1/
What are High Technology Industries? While the term "high technology" has no formally accepted definition, most organizations in Massachusetts have been using a select group of 20 industries (3-digit standard industrial classification codes) for the past few years. The reason for using a prescribed set of SIC codes is that comparable data are available from all states and are consistent over time, thus providing a basis for comparison and analysis of the data with other states and other industry sectors.

The particular 20 industries (3-digit SIC) were selected after extensive discussion and analysis by the economists at Jobs for Massachusetts (JFM). In general, the companies classified in these industries are labor intensive, with a highly skilled employee base. In particular they have a high ratio of scientists and engineers to their total labor force. These firms are characterized by high growth rates, high ratios of research and development (R & D) expenditures to sales and have value-added products. Their products compete in world-wide rather than simply regional or national markets.

The 20 SIC codes include the following industry groups, all within the manufacturing sector:

Drugs (SIC 283): This group includes establishments primarily engaged in manufacturing, fabricating and processing medicinal chemicals and pharmaceuticals.

Ordnance and Accessories, NEC (SIC 348): This group is largely comprised of establishments manufacturing small arms, ammunition (having a bore of over 30 mm).

Office Computing and Accounting Machine (SIC 357): This industry includes electronic computing equipment, especially mini and small computers and related peripheral devices plus calculating and accounting machines.

Electrical and Electronic Machinery, Equipment and Supplies (SIC 36): Includes SIC's 361,362,363,364,365,366,367,369 this major group includes establishments engaged in the manufacturing of machinery and apparatus for the generation, storage, transmission, transformation and utilization of electrical energy.

Guided Missiles and Space Vehicles and Parts (SIC 376): This group is principally engaged in the production of guided missiles and space vehicles including R & D activities.

Miscellaneous Transportation Equipment (SIC 379): Includes establishments primarily engaged in manufacturing vehicles for attachments to cars or other vehicles such as snowmobiles, caddy cars, etc.

Measuring, Analyzing, and Controlling Instrument Photographic, Medical and Optical Goods; Watches and Clocks (SIC 38): Includes 381, 382, 383, 384,385, 386, 387. This major group includes establishments engaged in production of engineering, laboratory, scientific, and navigational instruments; measuring and controlling instruments; optical instruments; medical instruments/supplies; and photographic instruments and supplies.

Source: "High Technology Employment in Massachusetts and Selected States".

IV. Employment Developments and Outlook by Occupation

A. Employment Trends

This section contains information on the occupations of employed persons and the distribution of occupations by age and sex. The Bureau of Labor Statistics provides the states with an estimated annual occupational profile of their labor forces. These profiles are produced from data collected by the Census Bureau which conducts the Current Population Survey (CPS) of the nation's labor force. The CPS has a sample of approximately 1,600 households in Massachusetts. This sample is not large enough to give us a great deal of statistically valid data on the various demographic groups. Nevertheless, the CPS occupational profile does provide us with useful information on the composition of the state's employment, and the 1981 data is in more extensive detail than had previously been received for earlier years.

Table 13 gives a comparison of the occupational distribution of employment in Massachusetts to the distribution nationwide and in other selected states. We should note that Massachusetts had a higher proportion of professional and technical workers than the nation, or any of the states listed. In fact, during 1981, Massachusetts had a higher ratio of such workers than any other state in the Union. In contrast, the number of farm workers here was especially low. We also had a lower percentage of our employed working in each of the blue-collar categories with the exception of nontransport operatives - that is factory workers.

A U.S./Massachusetts comparison of occupational employment for several major demographic groups is found on Table 14 . We can see that the proportions of men and women in professional and technical jobs was more nearly equal here than nationally. The same was true for operatives. Men in Massachusetts are about 20 percent more likely to work in a professional or managerial capacity,or as a service worker, than their national counterparts, and are less likely to work as a low-skilled laborer. Nonfarm laborers here are more likely to be White teenagers than was the case elsewhere. Why Massachusetts women are slightly more likely than men to work as operatives, while nationally the opposite is true, was largely due to the industrial mix of our manufacturing sector.

Information from the Equal Employment Opportunity reports (Affirmative Action) for Massachusetts and the U.S. can be found on Tables 15 and 16 . The Tables are not directly comparable. The data available for Massachusetts is not as current at that for the U.S. Still, the Tables do provide useful information about the employment distribution of larger employing units (100 or more employees).

The last Tables in this section, 17 and 18, concern the full-time and part-time status of the labor force. All demographic groups for which information is available had lower levels of unemployment in 1981 than occurred nationally. Proportionally, more people work part-time in Massachusetts than the U.S. as a whole. However, a higher ratio of our people wish to work part-time. Relatively fewer people in Massachusetts work part-time only because they cannot find a full-time job than in other parts of the country.

Table 13
Percent Distribution of Employment, By Occupation
United States, Massachusetts, and Selected States
1981 Annual Averages

	Total Employment		White Collar Workers				
	Number (000's)	Percent	Total	Professional and Technical Workers	Managers and Administrators Except Farm	Sales Workers	Clerical Workers
United States	100,397	100.0	52.7	16.4	11.5	6.4	18.5
Massachusetts	2,773	100.0	57.4	20.3	11.6	5.9	19.6
U.S./Massachusetts Percentage Point Difference	--	--	+ 4.7	+ 3.9	+ 0.1	- 0.5	+ 1.1
Other CPS 1/ States							
California	10,908	100.0	58.9	18.4	13.5	6.9	20.1
Florida	4,206	100.0	52.9	14.1	12.7	7.8	18.3
Illinois	5,103	100.0	54.0	17.2	11.5	6.1	19.2
Michigan	3,773	100.0	50.0	15.7	10.4	6.7	17.2
New Jersey	3,316	100.0	58.2	18.3	12.9	6.6	20.4
New York	7,404	100.0	58.1	18.4	11.2	6.4	22.1
Ohio	4,595	100.0	50.4	15.6	10.4	6.1	18.3
Pennsylvania	5,018	100.0	50.6	16.6	9.5	6.0	18.5
Texas	6,701	100.0	52.5	14.7	12.3	6.9	18.7
Massachusetts Ranking Among the CPS 1/ States 2/	10th	--	4th	1st	5th	10th	4th
Other New England States							
Connecticut	1,491	100.0	57.6	19.4	12.4	5.6	20.2
Maine	472	100.0	44.8	14.1	9.6	5.8	15.4
New Hampshire	456	100.0	52.7	19.0	10.9	5.9	16.8
Rhode Island	442	100.0	49.3	14.7	10.1	6.7	17.9
Vermont	245	100.0	50.7	18.0	12.0	5.8	15.0
Massachusetts Ranking Among the New England States 2/	1st	--	2nd	1st	3rd	2nd 3/	2nd

1/ The states which get their statewide labor force data directly from the Federal government's Current Population Survey (CPS).
2/ Ranking is from highest to lowest.
3/ Tied with New Hampshire
Source: Draft Copy, Geographic Profile of Employment and Unemployment - 1981

Table 13
Percent Distribution of Employment, By Occupation
United States, Massachusetts, and Selected States
1981 Annual Averages
(continued)

	Total Employment		Blue Collar Workers						
	Number (000's)	Percent	Total	Craft and Kindred Workers	Operatives Except Transport	Transport Equipment Operatives	Nonfarm Laborers	Service Workers	Farm Workers
United States	100,397	100.0	31.1	12.6	10.5	3.5	4.6	13.4	2.7
Massachusetts	2,773	100.0	29.1	11.8	11.1	2.8	3.4	13.3	0.2
U.S./Massachusetts Percentage Point Difference	--	--	- 2.0	- 0.8	+ 0.6	-0.7	-1.2	- 0.1	-2.5
Other CPS 1/ States									
California	10,908	100.0	26.6	11.2	8.4	2.8	4.2	12.4	2.1
Florida	4,206	100.0	29.5	13.2	6.7	3.7	5.9	15.5	2.0
Illinois	5,103	100.0	31.3	12.3	11.4	3.5	4.0	13.0	1.8
Michigan	3,773	100.0	33.3	12.5	12.5	3.4	4.8	15.1	1.5
New Jersey	3,316	100.0	30.0	12.0	10.5	3.7	3.8	11.1	0.7
New York	7,404	100.0	26.0	11.1	8.3	3.1	3.6	14.6	1.3
Ohio	4,595	100.0	34.0	13.4	12.2	3.7	4.8	14.1	1.5
Pennsylvania	5,018	100.0	34.3	13.0	12.5	3.6	5.2	14.0	1.1
Texas	6,701	100.0	32.6	14.2	9.6	3.7	5.0	12.0	2.9
Massachusetts Ranking Among the CPS 1/ States 2/	10th	--	8th	8th	5th	9th	10th	6th	10th
Other New England States									
Connecticut	1,491	100.0	30.5	13.2	10.7	2.9	3.7	11.5	0.3
Maine	472	100.0	40.8	15.3	15.8	3.7	5.9	12.6	1.9
New Hampshire	456	100.0	33.7	13.8	13.4	2.7	3.8	12.6	1.0
Rhode Island	442	100.0	37.3	13.0	16.8	2.9	4.6	13.0	0.4
Vermont	245	100.0	30.2	12.6	9.9	2.6	5.1	14.4	4.7
Massachusetts Ranking Among the New England States 2/	1st	--	2nd	6th	4th	5th	6th	2nd	6th

1/ The States which get their statewide labor force data directly from the Federal government's Current Population Survey (CPS)
2/ Ranking is from highest to lowest
3/ Tied with New Hampshire

Source; Draft copy, Geographic Profile of Employment and Unemployment - 1981

Table 14
Percent Distribution of Employment, By Occupation
United States and Massachusetts Demographic Groups
1981 Annual Averages

	Total Employment		White Collar Workers				
	Number (in 000's)	Percent	Total	Professional and Technical Workers	Managers and Administrators Except Farm	Sales Workers	Clerical Workers
TOTAL							
United States	100,397	100.0	52.7	16.4	11.5	6.4	18.5
Massachusetts	2,773	100.0	57.4	20.3	11.6	5.9	19.6
Men							
United States	57,397	100.0	42.9	15.9	14.6	6.1	6.3
Massachusetts	1,540	100.0	48.7	20.0	15.1	5.9	7.7
Women							
United States	43,000	100.0	65.9	17.0	7.4	6.8	34.7
Massachusetts	1,232	100.0	68.2	20.6	7.3	5.8	34.5
Both Sexes, 16-19 Years							
United States	7,225	100.0	33.9	2.5	1.5	8.7	21.1
Massachusetts	219	100.0	38.8	3.0	1.0	9.1	25.7
Whites							
United States	88,709	100.0	54.3	16.7	12.3	6.8	18.5
Massachusetts	2,653	100.0	57.6	20.2	11.8	5.9	19.7
Blacks							
United States	9,355	100.0	37.8	11.6	4.9	2.7	18.6
Massachusetts	91	100.0	46.3	15.1	8.1	5.1	17.9

Source: Draft copy Geographic Profile of Employment and Unemployment - 1981

Table 14
Percent Distribution of Employment, By Occupation
United States and Massachusetts Demographic Groups
1981 Annual Averages
(continued)

	Total Employment		Blue Collar Workers						
	Number (in 000's)	Percent	Total	Craft and Kindred Workers	Operatives Except Transport	Transport Equipment Operatives	Nonfarm Laborers	Service Workers	Farm Workers
TOTAL									
United States	100,397	100.0	31.1	12.6	10.5	3.5	4.6	13.4	2.7
Massachusetts	2,773	100.0	29.1	11.8	11.1	2.8	3.4	13.3	0.2
Men									
United States	57,397	100.0	44.3	20.7	11.1	5.5	7.1	8.9	3.9
Massachusetts	1,540	100.0	40.5	19.7	11.0	4.5	5.3	10.6	0.3
Women									
United States	43,000	100.0	13.6	1.9	9.7	0.7	1.2	19.4	1.1
Massachusetts	1,232	100.0	14.9	1.9	11.3	0.6	1.1	16.8	0.1
Both Sexes, 16-19 Years									
United States	7,225	100.0	31.1	5.8	9.7	2.1	13.4	30.9	4.2
Massachusetts	219	100.0	27.4	5.1	10.7	1.2	10.4	33.6	0.2
Whites									
United States	88,709	100.0	30.7	13.1	10.0	3.3	4.3	12.2	2.9
Massachusetts	2,653	100.0	29.2	12.0	11.0	2.8	3.5	12.9	0.2
Blacks									
United States	9,355	100.0	36.5	9.2	14.9	5.3	7.0	24.2	1.5
Massachusetts	91	100.0	26.8	7.2	15.3	1.2	3.1	26.9	1/

1/ Less than 0.05 percent of total employed

Source: Draft copy, Geographic Profile of Employment and Unemployment - 1981

Table 15
Occupational Distribution, By Percent
United States 1981 EEO -1 Report Summary 1/

	Total Employment	White Collar					
		Total	Officials and Managers	Professionals	Technicians	Sales Workers	Office and Clerical Workers
TOTAL - BOTH SEXES	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total Males	58.4	49.0	79.5	61.9	60.4	46.7	16.8
Total Females	41.6	51.0	20.5	38.1	39.6	53.3	83.2
Whites							
Total	81.0	86.7	92.1	89.7	84.7	87.1	81.4
Male	48.0	43.9	74.0	56.3	52.5	41.2	13.1
Female	33.0	42.8	18.1	33.4	32.2	45.9	68.3
Minorities							
Total	19.0	13.3	7.9	10.3	15.3	12.9	18.6
Male	10.4	5.2	5.5	5.6	7.9	5.5	3.7
Female	8.6	8.1	2.4	4.7	7.4	7.4	14.9
Blacks							
Total	11.4	7.6	4.2	4.3	8.7	7.3	11.6
Male	6.0	2.5	2.7	1.9	3.8	2.9	2.1
Female	5.5	5.0	1.5	2.4	4.9	4.4	9.5
Hispanics							
Total	5.5	3.5	2.3	2.0	3.6	4.2	4.8
Male	3.3	1.5	1.7	1.2	2.3	1.9	1.0
Female	2.2	2.0	0.6	0.7	1.3	2.2	3.8
Asians and Pacific Islanders							
Total	1.6	2.0	1.0	3.8	2.6	1.1	1.8
Male	0.8	1.0	0.8	2.3	1.6	0.5	0.4
Female	0.8	1.0	0.3	1.5	1.1	0.6	1.4
American Indians							
Total	0.4	0.3	0.3	0.2	0.4	0.3	0.4
Male	0.2	0.2	0.3	0.2	0.2	0.1	0.1
Female	0.1	0.2	0.1	0.1	0.1	0.1	0.3

1/ Private Employers with at least 100 employees.
Note: Numbers may not add due to rounding: Sample = 174600 employing units with total employment of 34,117,180.
Source: Survey Branch, Office of Program Planning and Evaluation, Equal Opportunity Commission.

Table 15
Occupational Distribution, By Percent
United States 1981 EEO-1 Report Summary 1/
(continued)

	Total Employment	Blue Collar				Service Workers
		Total	Craft Workers	Operatives	Nonfarm Laborers	
TOTAL - Both Sexes	100.0	100.0	100.0	100.0	100.0	100.0
Total Males	58.4	74.2	90.9	66.8	65.8	45.4
Total Females	41.6	25.8	9.1	33.2	34.2	54.6
Whites Total	81.0	76.5	85.0	74.8	67.1	67.3
Male	48.0	58.1	77.9	51.0	43.9	29.4
Female	33.0	18.4	7.0	23.8	23.1	37.9
Minorities						
Total	19.0	23.5	15.0	25.2	32.9	32.7
Male	10.4	16.1	13.0	15.8	21.9	16.0
Female	8.6	7.4	2.1	9.4	11.0	16.8
Blacks						
Total	11.4	14.2	8.4	16.1	18.9	22.0
Male	6.0	9.7	7.2	10.1	12.5	9.9
Female	5.5	4.6	1.2	6.0	6.4	12.1
Hispanics						
Total	5.5	7.7	5.3	7.4	12.2	8.4
Male	3.3	5.4	4.7	4.8	8.4	5.0
Female	2.2	2.2	0.6	2.6	3.8	3.5
Asians and Pacific Islanders						
Total	1.6	1.1	0.9	1.2	1.3	1.9
Male	0.8	0.6	0.7	0.6	0.7	1.0
Female	0.8	0.5	0.2	0.7	0.6	0.9
American Indians						
Total	0.4	0.5	0.5	0.5	0.5	0.4
Male	0.2	0.4	0.4	0.3	0.4	0.2
Female	0.1	0.1	2/	0.2	0.2	0.2

1/ Private Employers with at least 100 employees.
2/ Less than 0.05 percent

Numbers may not add due to rounding: Sample= 174600 employing units with total employment of 34,117,180.
Source: Survey Branch, Office of Program Planning and Evaluation, Equal Opportunity Commission.

Table 16
Occupational Distribution, By Percent
Massachusetts 1979 EEO-1 Report Summary 1/

	Total Employment	White Collar					
		Total	Officials and Managers	Pro-fessionals	Technicians	Sales Workers	Office and Clerical Workers
TOTAL - BOTH SEXES	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total Males	55.5	49.8	80.6	62.3	61.7	45.5	17.5
Total Females	44.5	50.2	19.4	37.7	38.3	54.5	82.5
Whites							
Total	92.0	94.4	96.1	95.1	93.2	94.3	93.1
Male	51.2	47.1	77.7	59.2	57.5	42.8	16.0
Female	40.8	47.2	18.4	35.9	35.6	51.6	77.1
Minorities							
Total	8.0	5.6	3.9	4.9	6.8	5.7	6.9
Male	4.3	2.7	2.9	3.1	4.1	2.7	1.5
Female	3.7	3.0	1.0	1.7	2.7	3.0	5.4
Blacks							
Total	4.5	3.4	2.1	2.1	4.1	3.5	4.9
Male	2.3	1.4	1.5	1.2	2.3	1.5	1.0
Female	2.3	2.0	0.7	0.9	1.8	2.0	3.9
Hispanics							
Total	2.5	1.1	1.0	0.7	1.2	1.6	1.1
Male	1.5	0.6	0.9	0.5	0.8	0.9	0.2
Female	1.0	0.5	0.2	0.2	0.4	0.7	0.9
Asians and Pacific Indians							
Total	0.8	1.0	0.5	1.9	1.4	0.5	0.7
Male	0.5	0.6	0.4	1.4	0.9	0.2	0.1
Female	0.4	0.4	0.1	0.5	0.5	0.3	0.6
American Indians							
Total	0.1	0.1	0.2	0.1	0.1	0.1	0.1
Male	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Female	2/	2/	2/	2/	2/	0.1	0.1

1/ Private Employers with at least 100 employees.
2/ Less than 0.05 percent.
Numbers may not add due to rounding- Sample =4,531 employing units with total employment of 1,016,294
Source: Survey Branch, Office of Program Planning and Evaluation, Equal Opportunity Commission.

Table 16
Occupational Distribution, By Percent
Massachusetts 1979 EEO-1 Report Summary 1/
(continued)

	Total Employment	Blue Collar				Service Workers
		Total	Craft Workers	Operatives	Nonfarm Laborers	
TOTAL - Both Sexes	100.0	100.0	100.0	100.0	100.0	100.0
Total Males	55.5	68.0	87.4	60.0	58.8	46.1
Total Females	44.5	32.0	12.6	40.0	41.2	53.9
Whites						
Total	92.0	89.5	93.5	88.1	86.6	85.5
Male	51.2	61.5	82.3	53.3	50.6	38.9
Female	40.8	27.9	11.2	34.8	35.9	46.6
Minorities						
Total	8.0	10.5	6.5	11.9	13.4	14.5
Male	4.3	6.5	5.1	6.7	8.2	7.2
Female	3.7	4.0	1.3	5.2	5.2	7.3
Blacks						
Total	4.5	5.0	3.3	5.6	6.0	10.1
Male	2.3	3.1	2.8	3.2	3.5	4.8
Female	2.3	1.9	0.5	2.4	2.5	5.3
Hispanics						
Total	2.5	4.8	2.7	5.4	6.7	3.5
Male	1.5	3.0	2.0	3.1	4.4	2.0
Female	1.0	1.8	0.7	2.3	2.3	1.5
Asians and Pacific Islanders						
Total	0.8	0.6	0.3	0.7	0.6	0.8
Male	0.5	0.3	0.2	0.3	0.2	0.4
Female	0.4	0.3	0.1	0.4	0.3	0.4
American Indians						
Total	0.1	0.2	0.1	0.2	0.1	0.1
Male	0.1	0.1	0.1	0.2	0.1	0.1
Female	2/	2/	2/	2/	2/	0.1

See footnotes on preceding page

Table 17
Full and Part-time Status
Massachusetts Labor Force
Annual Averages 1975-1981
(in 000's)

Year	Total	Full-time Labor Force				Part-time Labor Force			
		Employed		Unemployed (Looking For Full-time Work)			Employed	Unemployed (Looking For Part-time Work)	
		Full-time Schedules	Part-time for Economic Reasons	Number	Percent of Full-time Labor Force	Total	Voluntarily Employed Part-time	Number	Percent of Part-time Labor Force
1981	2425.0	2190.0	92.0	142.0	5.9	536.0	490.0	46.0	8.6
1980	2399.0	2182.0	92.0	125.0	5.2	495.0	457.0	38.0	7.6
1979	2369.0	2173.0	88.0	108.0	4.6	522.0	470.0	52.0	10.0
1978	2338.0	2121.0	92.0	126.0	5.4	497.0	450.0	47.0	9.4
1977	2287.0	2018.0	98.0	171.0	7.5	493.0	439.0	54.0	11.0
1976	2258.0	1957.0	97.0	204.0	9.0	505.0	446.0	59.0	11.6
1975	2229.0	1881.0	99.0	248.0	11.1	506.0	449.0	57.0	11.2

Source: 1980,1979,1978,1977,1976 and 1975 Geographic Profile of Employment and Unemployment
U. S. Department of Labor -- Bureau of Labor Statistics
1981 data is from the draft copy of the same report.

Table 18

Full and Part-time Status
United States and Massachusetts Demographic Groups
1981 Annual Averages (in 000's)

		Full-time Labor Force					Part-time Labor Force			
			Employed		Unemployed (Looking for Full-time Work)			Employed	Unemployed (Looking For Part-time Work)	
		Total	Full-time Schedules 1/	Part-time For Economic Reasons	Number	Percent of Full-time Labor Force	Total	Voluntarily Employed Part-time 1/	Number	Percent of Part-time Labor Force
TOTAL	United States	92,921	81,358	4,768	6,795	7.3	15,749	14,271	1,477	9.4
	Massachusetts	2,425	2,190	92	142	5.9	536	490	46	8.6
Men										
	United States	56,992	50,750	2,284	3,598	6.9	4,982	4,363	619	12.4
	Massachusetts	1,516	1,387	39	90	6.0	129	114	15	11.3
Women										
	United States	35,929	30,608	2,483	2,837	7.9	10,767	9,909	858	8.0
	Massachusetts	908	803	53	52	5.7	407	376	32	7.7
Both Sexes 16-19 Yrs.										
	United States	4,734	2,950	777	1,007	21.3	4,254	3,498	755	17.8
	Massachusetts	115	78	18	19	16.3	146	123	23	15.6
Whites										
	United States	80,810	71,722	3,953	5,135	6.4	14,242	13,033	1,208	8.5
	Massachusetts	2,309	2,091	87	132	5.7	518	475	42	8.2
Blacks										
	United States	9,880	7,675	712	1,493	15.1	1,206	968	238	19.7
	Massachusetts	Available data does not meet the publication standards for reliability								

1/ Employed persons with a job but not a work are distributed proportionately among the full-time and part-time employed categories.

Source: Draft copy, Geographic Profile of Employment and Unemployment - 1981

B. Employment Projections by Occupation

The occupational projections which appear in this section are from Employment Requirements by Occupation, by Industry 1976-1985. This publication was prepared by the Occupation/Industry Research Department of the Massachusetts Division of Employment Security. The projections were made following procedures outlined in BLS Bulletin 1606, the methodology is fully explained in the report. *

During the course of the nine years projected, approximately one and a quarter million job openings will occur in the state. Some 423,000 of these job openings will be due to growth -- about one-third of the total. The rest will be needed as replacements.

The greatest absolute changes are expected in the clerical, service and professional occupations. The greatest percentage increases are projected for clerical workers, service workers, and managers. Above average job openings due to growth are seen for clerical workers, professionals and crafts workers.

In 1981 the Executive Office of Economic Affairs issued a report titled 50 High Demand Occupations In Massachusetts-1981. This work was a joint effort by the economists of the Division of Employment Security, the Department of Manpower Development, and the Massachusetts Occupational Information Coordinating Committee. This report's purpose is to provide information which will help individuals considering a job or career change to make informed choices. We have reprinted two indices from the report for reader convenience. The first is an alphabetical index of High Demand Occupations in Massachusetts. The second lists these occupations by their major occupational clusters.

* The information in the report should be used as indicators of trend, relative magnitude and probable direction rather than a specific forecasts of actual employment levels. The information should also be used in conjunction with other data prepared by this agency and other public and private organizations - for example, the series on Vocational Education and Workforce Planning prepared by the Labor Area Research Department. It should be noted that the projections are based on 1976 industry employment.

Note: We expect that a revision of this report will be available by March of 1983.

Table 19

Massachusetts Employment by Occupation
1976 and Projected 1985

Occupational Title	Employment			Annual Labor Demand 1976 - 1985				
			Net	Average	Openings Due to Growth		Openings Due To Separations	
	1976	1985	Changes 1976-1985	Annual Openings	Number	percent	Number	Percent
Total - All Occupations	2,450,430	2,873,240	422,810	142,370	46,980	33.0	95,390	67.0
Prof., Tech., Kindred	434,650	500,960	66,320	20,470	7,310	35.7	13,160	64.3
Managers	260,570	309,470	48,900	16,490	5,430	32.9	11,060	67.1
Sales Workers	154,030	179,880	25,850	10,400	2,870	27.6	7,530	72.4
Clerical Workers	469,510	581,830	112,320	32,390	12,480	38.5	19,910	61.5
Crafts & Kindred Workers	289,810	334,480	44,670	14,140	4,960	35.1	9,180	64.9
Operatives	378,220	424,900	46,680	18,900	5,200	27.5	13,700	72.5
Service Workers	342,020	414,160	72,140	24,910	8,010	32.2	16,900	67.8
Laborers except Farm	98,380	108,940	10,560	4,000	1,170	29.3	2,830	70.7

Summed parts may not equal totals because of rounding. Data for Farmers and Farm Workers not listed.

Source: Employment Requirements by Occupation, by Industry 1976-1985.

Index 1

Annual Labor Demand

Massachusetts 1976 - 1985, Openings Due to Growth
(Occupations Whose Annual Openings Due to Growth Will Exceed 200)

Rank	Occupation	Number of Openings
1.	Secretaries (General).....	3,410
2.	Sales Clerks	2,200
3.	Cashiers.....	1,050
4.	Waiters and Waitresses.....	760
5.	Nurses Aides.....	730
6.	Cooks.....	670
7.	Electronics Technicians.....	570
8.	Carpenters.....	560
9.	Bookkeepers.....	490
10.	Child Care Workers.....	460
11.	Clerk-Typists.....	460
12.	Typists.....	460
13.	Secretaries (Medical).....	450
14.	Drafters.....	360
15.	Plumbers and Pipefitters.....	360
16.	Food Workers.....	350
17.	Real Estate Agents & Brokers.....	330
18.	Construction Workers.....	320
19.	Air Conditioning, Heating, and Refrigeration Mechanics.....	300
20.	Electricians.....	300
21.	Painters and Apprentices.....	270
22.	Auto Mechanics.....	260
23.	Billing Clerks.....	240
24.	Guards.....	240
25.	Secretaries (Legal).....	230

(Occupations Whose Annual Openings Due to Growth
Will be Less Than The Annual Separations)

1.	Compositors and Typesetters.....	-100
2.	Stenographers.....	- 60
3.	Bus Drivers	- 50
4.	Keypunch, Data Entry Operators...	- 40
5.	Cabinet Makers.....	- 20
6.	Cosmetologists	- 20
7.	Bakers.....	- 10
8.	Barbers	- 10
9.	Drill Press Operators	- 10
10.	Furniture & Wood Finishers.....	- 10
11.	Grinding Machine Operators.....	- 10
12.	Upholsterers.....	- 10

Source: "Employment Requirements by Occupation, by Industry 1976-1985" Occupational/Industry Publication, Massachusetts Division of Employment Security, December 1979.52

Index 2

Alphabetical Index of High Demand Occupations

1. Air Conditioning, Heating and Refrigeration Mechanics
2. Assemblers
3. Bank, Financial Managers
4. Bookkeepers
5. Buyers, Wholesale and Retail
6. Carpenters and Apprentices
7. Child Care Workers
8. Clinical Lab Technicians
9. Computer Programmers
10. Computer Service Technologists
11. Computer Systems Analysts
12. Cooks
13. Dental Assistants
14. Dental Hygientists
15. Drafters
16. Electrical Engineers
17. Electricians and Apprentices
18. Electronic Technicians
19. Excavating and Grading Machine Operators
20. Expeditors, Production Controllers
21. Fork Lift Operatives
22. Health Administrators
23. Health Aides
24. Heavy Equipment Mechanics
25. Industrial Engineers
26. Insurance Adjusters, Examiners
27. Lathe Machine Operatives
28. Legal Secretaries
29. Machinists
30. Managers, Superintendents of Buildings
31. Mechanical Engineers
32. Medical Secretaries
33. Opticians and Lens Grinders
34. Other Secretaries
35. Painters and Apprentices
36. Personnel and Labor Relations Workers
37. Photographic Process Workers
38. Plumbers and Pipefitters
39. Practical Nurses
40. Purchasing Agents
41. Radio and Television Repairers
42. Radiologic Technicians
43. Real Estate Agents, Brokers
44. Receptionists
45. Registered Nurses
46. Shipping and Receiving Clerks
47. Therapists
48. Tool and Die Makers
49. Truck Drivers
50. Waitresses and Waiters

Index 3
High Demand Occupations by Major Occupational Clusters

I. Professional and Technical

A. Engineers

1. Electrical Engineers
2. Industrial Engineers
3. Mechanical Engineers
4. Drafters

B. Health

5. Registered Nurses
6. Clinical Lab Technicians
7. Dental Hygientists
8. Radiological Technologists
9. Therapists

C. Other Technical

10. Electronic Technicians
11. Computer Programmers
12. Computer Systems Analysts
13. Computer Service Technologists

D. Other Professionals, Managers and Proprietors

14. Personnel and Labor Relations
15. Bank, Financial Managers
16. Buyers, Wholesale and Retail
17. Purchasing Agents
18. Health Administrators
19. Managers, Superintendents of Buildings
20. Real Estate Agents, Brokers

II. Clerical Occupations

21. Legal Secretaries
22. Medical Secretaries
23. Other Secretaries
24. Bookkeepers
25. Expeditors, Production Controllers
26. Insurance Adjusters, Examiners
27. Receptionists
28. Shipping and Receiving Clerks

Index 3
(continued)

III. Craft Workers

29. Carpenters and Apprentices
30. Electricians and Apprentices
31. Painters and Apprentices
32. Plumbers and Pipefitters
33. Excavating and Grading Machine Operators
34. Heavy Equipment Mechanics
35. Air Conditioning, Heating and Refrigeration Mechanics
36. Machinists
37. Tool and Die Makers
38. Radio and Television Repairers
39. Opticians and Lens Grinders

IV. Operatives

40. Assemblers
41. Photographic Process Repairers
42. Fork Lift Operatives
43. Truck Drivers
44. Lathe Machine Operatives

V. Service Workers

45. Cooks
46. Waitresses and Waiters
47. Dental Assistants
48. Health Aides
49. Practical Nurses
50. Child Care Workers

V. Trends in Unemployment

The unemployment rate is the most widely used index for measuring the performance of a state's economy and the impact of that economy on individuals. It is designed to measure the portion of the overall labor force that is unutilized at any given period of time. One of the major sources of data at both the national and state levels is the Current Population Survey (CPS). The CPS is a monthly survey of 1,575 Massachusetts households conducted by the Bureau of Census for the United State's Department of Labor's Bureau of Labor Statistics. The unemployment rate is calculated by dividing the number of people who are classified as unemployed by the civilian labor force which is the sum of the employed and unemployed. By definition, an unemployed individual is one who did not work at all during the reference week, had looked for work during the past four weeks, and was available for work at the time of the survey.

This section will examine estimates of the 1981 annual average unemployment rates for the United States, Massachusetts, and the remaining states. In addition, demographic data is provided to view the unemployment situation of different components within the Massachusetts economy.

Table 20 presents an analysis of recent claims activity. It shows that claims activity for the first 6 months of 1982 was substantially higher than for the corresponding period in 1981. This was due to the deepening national recession whose impact became more pronounced in Massachusetts, causing growth industries such as high technology to level off and actually decline as total manufacturing employment was also dropping. However, although claims levels will be higher than last year, we expect the gap to be narrowed. This year the claims load will not have to bear the brunt of the Proposition 2½ layoffs affecting state and local government employees. Although government employment will likely decrease because of further cutbacks, they will not be nearly as severe as last year. Therefore, the gap between the state and national employment rates will once again widen with Massachusetts faring as well as if not better than the majority of the ten large industrial states.

The data from the CPS on Tables 22 and 23 present recent trends in the unemployment rate. The tables show that although Massachusetts was doing better than the nation and most of the heavily industrialized states, she was gradually becoming more and more affected by the recession. The 1.3 percentage point difference between the state and national unemployment rates in June 1981 had been nearly halved by June 1982. In addition Massachusetts had dropped to 4th place amongst the 10 large industrial states as compared to 2nd for the corresponding period of one year ago with only Texas having a lower unemployment rate. However, the outlook is for Massachusetts to revert back to its pattern of the last few years with slight increases and not follow the nation and other industrial states into spiralling unemployment rates and the post recessionary doldrums of 1975. Table 26 shows that during 1975 Massachusetts unemployment rate was 2.7 percentage points higher than the nation, ranked next to last among the 10 large industrial states and tied for last place in New England.

Although unemployment figures were previously given in Section I the following table based on current projections, reveals that both the Massachusetts and the national unemployment rates have been revised upwards.

Federal Fiscal Year	Massachusetts	United States
1981	5.9%	7.4%
1982	7.8%	9.1%
1983	8.1%	9.3%

The comparison between Massachusetts and the nation once again shows that although Massachusetts' unemployment rate increased by .3 of a percentage point for FFY 1983 it is still projected to be 1.2 percentage points below that of the nation.

Table 20
Claims Data Monthly Survey Week
January 1981-June 1982

Month	State UI Continued Weeks Claimed	State UI Initial Claims	Federal Civilian Continued Claims	Unemployed Exhaustees
1981				
January	99567	10722	1033	17872
February	94159	11452	778	18487
March	88297	8439	600	18878
April	74585	10762	469	19503
May	64801	8374	600	19673
June	64902	11386	618	19673
July	93948	10723	734	18814
August	85300	7823	702	18884
September	75975	8321	909	18527
October	70457	8881	1112	17919
November	78084	12039	1115	17658
December	92839	16904	1155	17428
1981 Annual Average	81909	10485	819	18609
1982				
January	118292	15507	1105	18431
February	114212	13730	780	21048
March	106521	12813	750	22094
April	96947	12537	595	23050
May	84755	10157	587	24026
June	84214	9605	562	24568
1982 - 6-Month Average	100823	12391	730	22203

Table 21
State Monthly Labor Force Data
(Seasonally Adjusted)
January 1981-June 1982
(in 000's)

Month	Labor Force	Employment	Unemployment	Unemployment Rate	
				Mass.	U.S.
1980 Annual Average	2876.0	2714.0	162.0	5.6	7.1
1981					
January	2906.0	2753.0	153.0	5.3	7.4
February	2936.0	2770.0	166.0	5.7	7.4
March	2928.0	2758.0	170.0	5.8	7.3
April	2900.0	2737.0	163.0	5.6	7.3
May	2920.0	2744.0	176.0	6.0	7.5
June	2925.0	2748.0	177.0	6.1	7.4
July	2959.0	2767.0	192.0	6.5	7.2
August	2981.0	2776.0	205.0	6.9	7.3
September	2964.0	2769.0	195.0	6.6	7.6
October	3029.0	2806.0	223.0	7.4	8.0
November	3048.0	2835.0	213.0	7.0	8.3
December	3029.0	2805.0	224.0	7.4	8.8
1982 Annual Average	2961.0	2773.0	188.0	6.4	7.6
January	3005.0	2797.0	208.0	6.9	8.5
February	2968.0	2737.0	231.0	7.8	8.8
March	2987.0	2768.0	219.0	7.3	9.0
April	2997.0	2743.0	254.0	8.5	9.4
May	3039.0	2775.0	264.0	8.7	9.5
June	3016.0	2751.0	265.0	8.8	9.5
1982 6-Month Average	3002.0	2762.0	240.0	8.0	9.1

Table 22
Seasonally Adjusted Unemployment Rates
United States and Ten CPS States*
January-June 1982

	January	February	March	April	May	June
United States	8.5	8.8	9.0	9.4	9.5	9.5
Massachusetts	6.9	7.8	7.3	8.5	8.7	8.8
California	8.7	8.9	9.4	9.3	9.5	9.5
Florida	7.4	7.3	8.9	8.7	7.9	7.5
Illinois	9.0	9.6	9.8	10.4	11.0	11.3
Michigan	14.9	14.8	16.1	15.0	14.3	14.4
New Jersey	9.4	8.9	8.8	9.2	9.2	8.2
New York	7.8	8.4	8.2	8.1	8.2	8.8
Ohio	10.7	11.3	11.8	12.4	11.7	12.3
Pennsylvania	11.2	10.3	10.1	10.7	10.4	9.7
Texas	5.6	5.7	5.9	6.5	6.4	7.0
Rank of Massachusetts	2nd	3rd	2nd	3rd	4th	4th[1/]
Mass.-U.S. Difference in Percentage Points	-1.6	-1.0	-1.7	-0.9	-0.8	-0.7

1/ Tied with New York

* The CPS states are the ten large states which get their statewide employment and unemployment data from the National Bureau of Labor Statistics.

Table 23
Unemployment by State and Race
1981 Annual Averages

State	Total		White		Black	
	Unemployment (in 000's)	Unemployment Rate	Unemployment (in 000s')	Unemployment Rate	Unemployment (in 000's)	Unemployment Rate
United States	8273.0	7.6	6343.0	6.7	1731.0	15.6
Massachusetts	188.0	6.4	174.0	6.1	12.0	11.3
Alabama	178.0	10.7	96.0	7.5	82.0	21.3
Alaska	18.0	9.3	12.0	7.3	1.0	12.7
Arizona	78.0	6.1	74.0	6.1	2.0	9.1
Arkansas	94.0	9.1	64.0	7.2	28.0	21.1
California	872.0	7.4	698.0	6.9	121.0	14.4
Colorado	84.0	5.5	78.0	5.3	4.0	8.6
Connecticut	98.0	6.2	80.0	5.4	18.0	7.7
Delaware	23.0	7.9	16.0	6.5	6.0	15.7
Florida	308.0	6.8	213.0	5.8	92.0	11.8
Georgia	165.0	6.4	103.0	5.0	52.0	6.0
Hawaii	24.0	5.4	8.0	6.5	(*)	6.1
Idaho	32.0	7.6	32.0	7.6	(*)	(*)
Illinois	474.0	8.5	342.0	7.1	125.0	19.1
Indiana	263.0	10.1	220.0	9.1	41.0	23.4
Iowa	98.0	6.9	92.0	6.6	5.0	25.3
Kansas	50.0	4.2	44.0	3.9	5.0	10.5
Kentucky	140.0	8.4	124.0	8.0	15.0	14.5
Louisiana	156.0	8.4	82.0	5.9	75.0	15.8
Maine	37.0	7.2	36.0	7.2	(*)	12.6
Maryland	157.0	7.3	94.0	5.5	61.0	14.5
Michigan	528.0	12.3	405.0	10.6	115.0	26.8
Minnesota	118.0	5.5	114.0	5.4	2.0	10.2
Mississippi	88.0	8.3	36.0	4.8	51.0	16.9
Missouri	178.0	7.7	146.0	6.9	31.0	16.3
Montana	26.0	6.9	23.0	6.1	(*)	16.3
Nebraska	32.0	4.1	27.0	3.6	4.0	15.9
Nevada	33.0	7.1	27.0	6.5	4.0	16.4
New Hampshire	24.0	5.0	24.0	5.1	(*)	(*)

Table 23
Unemployment by State and Race
1981 Annual Averages
(continued)

State	Total		White		Black	
	Unemployment (in 000's)	Unemployment Rate	Unemployment (in 000's)	Unemployment Rate	Unemployment (in 000's)	Unemployment Rate
New Jersey	262.0	7.3	204.0	6.5	54.0	14.4
New Mexico	42.0	7.3	32.0	6.2	3.0	25.2
New York	612.0	7.6	448.0	6.6	157.0	14.7
North Carolina	188.0	6.4	115.0	4.9	67.0	12.8
North Dakota	16.0	5.0	14.0	4.7	(*)	30.4
Ohio	490.0	9.6	397.0	8.6	92.0	20.4
Oklahoma	52.0	3.6	40.0	3.1	6.0	9.2
Oregon	131.0	9.9	117.0	9.2	7.0	25.4
Pennsylvania	458.0	8.4	374.0	7.5	79.0	18.7
Rhode Island	36.0	7.6	34.0	7.3	2.0	20.4
South Carolina	119.0	8.4	55.0	5.5	63.0	15.1
South Dakota	17.0	5.1	13.0	4.2	(*)	0.7
Tennessee	192.0	9.1	130.0	7.4	61.0	17.2
Texas	373.0	5.3	283.0	4.5	87.0	11.5
Utah	43.0	6.7	41.0	6.6	(*)	7.2
Vermont	15.0	5.7	15.0	5.7	(*)	41.8
Virginia	158.0	6.1	104.0	4.9	51.0	11.5
Washington	189.0	9.5	169.0	9.1	9.0	19.4
West Virginia	84.0	10.7	81.0	10.6	3.0	13.6
Wisconsin	185.0	7.8	171.0	7.4	13.0	20.5
Wyoming	10.0	4.1	10.0	4.0	(*)	10.3

(*) Less than 500 persons or less than 0.05 percent

Source: Draft copy of the 1981 Geographic Profile of Employment and Unemployment

Table 24
1981 Annual Average Unemployment Rates
United States and The States
Men, Women and Youth

	Total	Men	Men 20 Yrs.+	Women	Women 20 Yrs.+	Both Sexes Youth 16 - 19 Yrs.
United States	7.6	7.4	6.3 [1]	7.9	6.8 [1]	19.6
Massachusetts	6.4	6.4	5.6	6.3	5.2	15.9
U.S./Massachusetts Percentage Point Difference	- 1.2	- 1.0	- 0.7	- 1.6	- 1.6	- 3.7
Massachusetts Ranking Among The States [2]	16th [3]	19th	23rd [4]	11th	11th	14th
Alabama	10.7	9.6	8.4	12.0	10.3	27.0
Alaska	9.3	10.4	9.8	7.7	7.3	15.7
Arizona	6.1	5.7	4.9	6.7	5.9	14.5
Arkansas	9.1	8.3	6.9	10.1	9.0	21.8
California	7.4	7.5	6.5	7.3	6.4	18.7
Colorado	5.5	5.4	4.3	5.7	4.4	18.7
Connecticut	6.2	5.3	4.1	7.4	6.3	17.2
Delaware	7.9	7.1	6.2	9.0	7.9	18.1
Florida	6.8	6.6	5.5	7.1	5.9	19.4
Georgia	6.4	5.4	4.5	7.5	6.4	18.3
Hawaii	5.4	5.8	4.6	4.9	4.4	16.9
Idaho	7.6	7.7	6.5	7.4	6.3	18.2
Illinois	8.5	8.5	7.3	8.5	7.6	20.5
Indianna	10.1	9.7	8.9	10.6	9.5	20.6
Iowa	6.9	7.0	5.9	6.8	5.9	16.3
Kansas	4.2	4.2	3.5	4.3	3.9	10.4
Kentucky	8.4	7.9	6.8	9.0	7.6	22.5
Louisiana	8.4	7.5	6.4	9.8	8.7	21.0
Maine	7.2	6.7	5.2	7.9	7.3	18.1
Maryland	7.3	7.1	5.7	7.5	6.9	18.6
Michigan	12.3	12.1	10.7	12.6	11.1	25.5
Minnesota	5.5	5.8	5.0	5.2	4.1	13.7
Mississippi	8.3	7.2	5.9	9.8	8.0	25.1
Missouri	7.7	7.4	6.7	8.1	7.1	17.1
Montana	6.9	6.5	5.6	7.6	6.2	19.2

Table 24
1981 Annual Average Unemployment Rates
United States and The States
Men, Women and Youth
(continued)

	Total	Men	Men 20 Yrs.+	Women	Women 20 Yrs.+	Both Sexes Youth 16 - 19 Yrs.
Nebraska	4.1	3.8	3.2	4.4	3.8	9.9
Nevada	7.1	7.1	6.4	7.1	6.2	16.5
New Hampshire	5.0	4.8	3.8	5.3	4.5	15.4
New Jersey	7.3	6.7	5.3	8.1	6.7	23.2
New Mexico	7.3	7.1	5.8	7.5	6.1	21.9
New York	7.6	7.4	6.4	7.9	6.7	21.9
North Carolina	6.4	5.5	4.7	7.7	6.6	17.2
North Dakota	5.0	5.1	4.7	4.9	4.3	9.9
Ohio	9.6	10.1	9.0	9.0	7.6	23.1
Oklahoma	3.6	3.5	2.5	3.6	3.2	11.9
Oregon	9.9	10.4	9.3	9.2	8.0	22.8
Pennsylvania	8.4	8.8	7.5	7.8	7.0	20.3
Rhode Island	7.6	6.7	5.4	8.7	7.6	19.4
South Carolina	8.4	7.3	6.8	9.8	8.2	20.9
South Dakota	5.1	5.1	4.5	5.1	4.0	12.6
Tennessee	9.1	8.7	7.0	9.6	8.0	29.4
Texas	5.3	4.4	3.5	6.4	5.5	15.6
Utah	6.7	5.8	4.8	7.9	6.8	15.4
Vermont	5.7	4.9	4.4	6.8	6.0	13.1
Virginia	6.1	4.9	3.8	7.6	6.4	20.4
Washington	9.5	9.7	8.4	9.3	8.0	24.0
West Virginia	10.7	11.8	10.3	8.9	7.0	30.3
Wisconsin	7.8	8.0	6.8	7.6	6.5	17.9
Wyoming	4.1	3.9	3.3	4.5	3.7	11.8

1/ Derived by subtracting Youth from Total

2/ From lowest to highest.

3/ Tied with Georgia and North Carolina.

4/ Tied with Montana

Source: Draft copy, Geographic Profile of Employment and Unemployment - 1981

Table 25
Annual Average Unemployment Rates
United States, New England and CPS States
1970-1981

States	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
United States	4.9	5.9	5.6	4.9	5.6	8.5	7.7	7.1	6.1	5.8	7.1	7.6
Massachusetts	4.6	6.6	6.4	6.7	7.2	11.2	9.5	8.1	6.1	5.5	5.6	6.4
U.S./Massachusetts Percentage Point Difference	-0.3	+0.7	+0.8	+1.8	+1.6	+2.7	+1.8	+1.0	--	-0.3	-1.5	-1.2
Other CPS 1/ States												
California	7.3	8.8	7.6	7.0	7.3	9.9	9.2	8.2	7.1	6.2	6.8	7.4
Florida	4.3	4.9	5.1	4.3	6.2	10.7	9.0	8.2	6.6	6.0	5.9	6.8
Illinois	3.6	5.1	5.1	4.1	4.2	7.1	6.5	6.2	6.1	5.5	8.3	8.5
Michigan	6.7	7.6	7.0	5.9	7.4	12.5	9.4	8.2	6.9	7.8	12.4	12.3
New Jersey	4.6	5.7	5.8	5.6	6.3	10.2	10.4	9.4	7.2	6.9	7.2	7.3
New York	4.5	6.6	6.7	5.4	6.4	9.5	10.3	9.1	7.7	7.1	7.5	7.6
Ohio	5.4	6.5	5.5	4.3	4.8	9.1	7.8	6.5	5.4	5.9	8.4	9.6
Pennsylvania	4.5	5.4	5.4	4.8	5.1	8.3	7.9	7.7	6.9	6.9	7.8	8.4
Texas	4.4	5.0	4.5	3.9	4.3	5.6	5.7	5.3	4.8	4.2	5.2	5.3
Massachusetts ranking among the CPS 1/ States 2/	6th 3/	7th 4/	7th	9th	8th	9th	8th	5th	3rd 5/	2nd 5/	2nd	2nd
New England States												
Total	4.9	6.9	6.8	6.1	6.6	10.4	9.1	7.7	5.7	5.4	5.9	6.3
Connecticut	5.7	8.4	8.6	6.3	6.1	9.1	7.5	7.0	5.2	5.1	5.9	6.2
Maine	5.5	7.4	6.8	5.8	6.5	10.3	8.9	8.4	6.1	7.2	7.8	7.2
New Hampshire	3.8	5.1	4.8	4.4	5.5	9.0	6.4	5.9	3.8	3.1	4.7	5.0
Rhode Island	4.1	5.4	5.1	4.8	5.5	11.2	8.1	8.6	6.6	6.6	7.2	7.6
Vermont	4.5	6.3	6.0	5.3	6.4	9.4	8.7	7.0	5.7	5.1	6.4	5.7
Massachusetts ranking among the New England States 2/	4th	4th	4th	6th	6th	5th 6/	6th	4th	4th 7/	4th	2nd	4th

1/ The states which get their statewide labor force data directly from the Federal government's Current Population Survey (CPS).
2/ Ranking is from lowest unemployment rate to highest.
3/ Tied with New Jersey.
4/ Tied with New York
5/ Tied with Illinois
6/ Tied with Rhode Island
7/ Tied with Maine

Source: Bureau of Labor Statistics

Labor Area Unemployment Trends

Table26 illustrates the trends in unemployment rates among all labor areas within the state between 1975 and 1981. When one looks at the state average and then compares it to different labor areas it is easy to discern that all areas of the state are not doing well. That is why a sub state comparison is often invaluable in showing how the rate for the whole can gloss over chronic problems.

The preceding can be illustrated by the fact that the Boston, Springfield, and Worcester labor areas when combined account for approximately two-thirds of the state's labor force. Since these areas have historically had lower unemployment rates, they in effect carry the state when all labor area rates are averaged. However, by looking at Table 27 one can easily see that the southeastern area of Massachusetts has been the long suffering sector of the Massachusetts economy and the future outlook is for this trend to continue. The southeast which had been predominantly a textile and shoe manufacturing area suffered the most when foreign competition virtually eliminated many firms. These firms could not compete with the lower priced foreign goods and were forced out of business. In effect, it was a blow from which they never recovered.

Conversely, the Northeast was also a textile and shoe center but it was able to recover from the 1974-1975 recessionary period because of area redevelopment and its proximity to the Route 128 belt where high tech industries have been expanding.

The preceding has shown how two areas having similar economies can differ substantially in post recessionary periods and also how this fact can be camouflaged or entirely missed when one judges a state's economy by using an overall figure without fully examining the sub-areas. In fact, during the recovery years the southeastern labor areas of Fall River and New Bedford annual average unemployment rates never declined below 7.3 percent.

The southeast simply has not had the capital investment, plant expansions, new firms, locations as far as access to major highways in relation to the distance from job opportunities, and the composition of the labor force that the northeast either received or had to reverse the economic downturn during either recessionary and post recessionary periods.

Table 26
Annual Average Unemployment Rates
Massachusetts and The Labor Areas
1975-1981

Areas	1975	1976	1977	1978	1979	1980	1981
United States	8.5	7.7	7.0	6.0	5.8	7.1	7.6
Massachusetts	11.2	9.5	8.1	6.1	5.5	5.6	6.4
Major Labor Areas							
Boston SMSA	10.5	9.1	7.8	5.8	5.3	5.0	5.7
Brockton SMSA	11.7	10.3	9.2	6.5	6.2	6.8	7.9
Fall River LMA*	11.6	9.6	9.4	7.3	7.5	8.2	8.6
Lawrence-Haverhill SMSA*	13.6	12.8	10.1	7.1	7.2	6.2	6.5
Lowell LMA	12.0	10.2	8.4	6.4	5.5	5.7	6.1
New Bedford LMA	14.0	11.4	10.9	8.5	7.5	8.1	8.8
Springfield LMA	11.3	9.0	7.1	5.3	4.8	5.5	6.3
Worcester LMA	11.2	8.9	6.7	4.9	4.6	5.2	5.9
Other Labor Areas							
Athol	11.3	10.5	8.3	5.7	5.3	5.5	6.8
Barnstable	13.5	12.3	11.3	8.7	7.6	8.4	9.2
Clinton	12.5	10.5	12.3	7.8	5.9	5.8	7.1
Dukes	8.9	8.9	9.5	7.2	7.8	6.7	7.6
Fitchburg-Leominster SMSA	13.5	10.1	8.2	5.7	4.9	6.1	6.3
Gardner	12.5	10.9	8.8	5.9	5.1	6.0	7.2
Gloucester	12.0	10.7	10.5	9.8	8.5	8.2	9.1
Great Barrington	6.5	6.2	6.3	5.2	4.6	4.9	4.4
Greenfield	9.7	9.0	7.5	5.6	4.9	5.4	5.8
Marlboro	7.9	6.1	5.1	4.4	3.6	4.0	5.1
Milford	13.1	10.2	8.0	5.6	5.3	7.2	9.5
Nantucket	6.3	6.4	7.2	5.8	5.5	4.7	4.6
Newburyport	13.1	11.1	9.3	7.3	7.0	6.8	7.0
Pittsfield	10.5	9.6	8.7	6.6	5.7	6.1	6.9
Plymouth	13.6	12.2	11.8	9.6	8.1	6.8	7.9
Southbridge	11.4	8.2	6.3	4.9	4.6	6.6	7.2
Taunton	13.2	8.9	9.3	7.1	7.0	7.8	9.0
Ware	18.8	14.3	10.3	6.9	6.4	8.2	8.8
Providence Rhode Island*	9.5	7.7	8.0	6.2	6.1	6.6	6.8
Balance of State	12.1	10.0	8.5	6.6	6.2	6.5	7.5

* Massachusetts Portion

Table 27
Labor Force, Employment, Unemployment
Massachusetts and the Labor Areas
1981 Annual Averages
(in 000's)

Areas	Labor Force	Employment	Unemployment	Unemployment Rate
Massachusetts	2961.0	2773.0	188.0	6.4
Major Labor Areas				
Boston SMSA	1434.8	1352.7	82.1	5.7
Brockton SMSA	82.6	76.1	6.5	7.9
Fall River LMA*	67.4	61.7	5.8	8.6
Lawrence-Haverhill SMSA*	147.7	138.2	9.6	6.5
Lowell LMA	128.8	120.9	7.9	6.1
New Bedford LMA	86.2	78.6	7.6	8.8
Springfield LMA	280.0	262.3	17.7	6.3
Worcester LMA	200.4	188.5	11.9	5.9
Other Labor Areas				
Athol	11.3	10.5	0.8	6.8
Barnstable	73.0	66.3	6.7	9.2
Clinton	9.5	8.8	0.7	7.1
Dukes	5.1	4.7	0.4	7.6
Fitchburg-Leominster SMSA	50.4	47.3	3.2	6.3
Gardner	21.5	19.9	1.6	7.2
Gloucester	25.6	23.3	2.3	9.1
Great Barrington	10.3	9.8	0.5	4.4
Greenfield	29.0	27.4	1.7	5.8
Marlboro	59.2	56.2	3.0	5.1
Milford	18.8	17.0	1.8	9.5
Nantucket	3.3	3.1	0.2	4.6
Newbuyrport	19.1	17.8	1.3	7.0
Pittsfield	68.2	63.5	4.7	6.9
Plymouth	36.8	33.9	2.9	7.9
Southbridge	16.4	15.3	1.2	7.2
Taunton	26.7	24.3	2.4	9.0
Ware	6.4	5.8	0.6	8.8
Providence Rhode Island*	47.8	44.5	3.3	6.8
Balance of State	21.1	19.5	1.6	7.5

* Massachusetts Portion

Data may not add due to rounding
All unemployment rates were computed using unrounded data.

Characteristics of the Insured Unemployed

The following tables contain information about the characteristics of the insured unemployed. The information contained in the tables when combined with the demographic detail contained in the tables in the first part of Section V may help to achieve the following objectives:

a. Assist manpower planners in identifying target populations;

b. Guide economic policies;

c. Identify the nature of unemployment within a state;

d. Improve utilization of manpower resources;

e. Improve public information and understanding.

Tables 31A and 31B show the industrial attachment of claimants from July 1, 1981 to June 30, 1982. As usual, construction which usually provides not more than 3 percent of total nonfarm employment never had less than 9.8 percent of the claimants. Construction which is affected by climatic conditions as well as economic downturns in other sectors has traditionally had large numbers of claimants and more so during recessionary periods when building starts are down. Manufacturing which represents approximately 25 percent of nonagricultural jobs is another sector with a disproportionate amount of claimants collecting unemployment.

The tables on racial characteristics of the insured unemployed contain monthly information from January 1981 through March 1982. The data shows that approximately nine out of ten claimants were White. Nonwhite unemployment which generally is higher than unemployment among Whites is reflected in the claims figures which indicate that Nonwhites represent a higher percentage of the insured unemployed than of the total population. Claimants with a Spanish surname accounted for 2.5 percent of the claimant total and represented exactly 2.5 percent of the general population.

Table 34 shows that the heaviest concentration of Nonwhites was within the Boston Prime Sponsor area where 25 percent of the claimants were Nonwhites. This was not only the heaviest concentration of Nonwhite claimants of any Prime Sponsor but also represents 50 percent of the Nonwhite claimants total statewide. When one considers that the Boston Prime Sponsor includes just the City of Boston and the Boston SMSA includes the City of Boston and 91 other cities and towns, Table 35 shows exactly how great the concentration of Nonwhite claimants are within the city of Boston. The Boston SMSA had 2,444 Nonwhite claimants or only 400 more than Boston City alone. Information of this type surely can assist manpower planners in locating and identifying target groups.

Table 28
Unemployment Rates of Experienced Labor Force, By Industry
United States, Massachusetts, and Selected States
1981 Annual Averages

States	Total Unemployment Rate	Experienced Unemployment Rate	Nonagricultural Industries												Agriculture
				Private Nonagricultural Wage and Salary Workers										Government	
			Total	Total	Mining	Construction	Total	Durable Goods	Nondurable Goods	Transp. Comm.& Public Util.	Wholesale and Retail Trade	Fin., Ins., and Real Estate	Services		
United States	7.6	6.8	6.8	7.7	6.0	15.6	8.3	8.2	8.4	5.2	8.1	3.5	6.7	4.7	5.8
Massachusetts	6.4	5.6	5.6	5.8	1/	13.4	5.1	4.1	7.2	4.9	6.3	3.7	5.6	5.0	1/
U.S./Massachusetts Percentage Point Difference	-1.2	-1.2	-1.2	-1.9	—	- 2.2	-3.2	-4.1	-1.2	-0.3	-1.8	+ 0.2	-1.1	+0.3	--
Other CPS 2/ States															
California	7.4	6.7	6.5	7.3	7.1	15.0	7.6	6.5	9.8	5.7	7.8	3.0	6.7	4.8	13.2
Florida	6.8	6.1	6.0	6.7	1/	10.8	7.6	7.4	7.9	4.5	7.3	3.0	6.1	4.1	10.6
Illinois	8.5	7.5	7.6	8.3	1/	18.2	8.7	8.4	9.1	5.9	8.8	5.4	6.8	5.7	3.0
Michigan	12.3	10.8	10.9	12.2	1/	25.8	13.1	13.9	10.1	8.3	12.0	5.5	9.8	6.4	7.5
New Jersey	7.3	6.3	6.3	7.0	1/	13.7	7.0	7.0	7.0	5.0	8.6	4.0	5.9	3.5	1/
New York	7.6	6.6	6.7	7.5	1/	13.8	7.7	6.7	9.1	5.6	8.7	2.8	7.4	4.7	3.0
Ohio	9.6	8.5	8.6	9.5	1/	26.2	9.3	9.9	8.0	7.6	8.7	5.5	8.5	5.8	3.9
Pennsylvania	8.4	7.4	7.4	8.2	6.2	21.6	8.7	8.5	9.0	5.5	8.2	5.7	6.2	5.4	9.1
Texas	5.3	4.7	4.6	5.2	4.1	6.5	5.0	4.4	5.8	3.1	6.9	1.8	5.2	3.9	5.9
Massachusetts Ranking Among The CPS 2/ States 3/	2nd	2nd	2nd	2nd	--	3rd	2nd	1st	3rd	3rd	1st	5th	2nd	6th	--
Other New England States															
Connecticut	6.2	5.4	5.2	5.7	1/	11.3	6.2	5.7	8.0	2.9	6.0	3.8	5.4	3.4	1/
Maine	7.2	6.6	6.4	7.5	1/	16.2	7.0	7.2	6.9	5.9	8.0	1.0	7.0	3.7	1/
New Hampshire	5.0	4.5	4.6	5.5	1/	12.4	4.6	4.2	5.4	1.8	5.8	1.7	6.5	1.3	1/
Rhode Island	7.6	6.7	6.7	7.4	1/	1/	7.9	8.4	6.9	1/	7.4	3.2	6.3	4.9	1/
Vermont	5.7	5.2	5.2	6.0	1/	13.3	6.0	4.7	10.5	3.6	6.0	2.5	5.1	3.8	5.2
Massachusetts Ranking Among The New England States 3/	4th	4th	4th	3rd	--	--	2nd	1st	4th	--	4th	5th	3rd	6th	--

1/ Available data does not meet the publication standards for reliablity.
2/ The states which get their statewide labor force data directly from the Federal government's Current Population Survey (CPS).
3/ Ranking is done only when there is data available for all the states being compared. Ranking is from lowest unemployment rate to highest.

Source: Draft copy, Geographic Profile of Employment and Unemployment - 1981

Table 29
Unemployment Rates of Experienced Labor Force, By Occupation
United States, Massachusetts, and Selected States
1981 Annual Averages

	Total Unemployment Rate	Experienced Unemployment Rate	White Collar Workers					Blue Collar Workers					Service Workers	Farm Workers
			Total	Professional and Technical Workers	Managers and Administrators Except Farm	Sales Workers	Clerical Workers	Total	Craft and Kindred Workers	Operatives Except Transport	Transport Equipment Operatives	Nonfarm Laborers		
United States	7.6	6.8	4.0	2.8	2.7	4.6	5.7	10.3	7.5	12.2	8.7	14.7	8.9	5.3
Massachusetts	6.4	5.6	3.6	2.6	2.4	3.8	5.2	8.3	6.9	8.7	5.2	15.1	7.6	1/
U.S./Massachusetts Percentage Point Diff.	-1.2	-1.2	-0.4	-0.2	-0.3	-0.8	-0.5	- 1.8	-0.6	- 3.5	-3.5	+ 0.4	-1.3	--
Other CPS 2/ States														
California	7.4	6.7	4.2	3.3	2.5	4.9	5.8	10.6	8.2	12.1	10.7	13.7	8.0	16.1
Florida	6.8	6.1	3.6	2.7	2.7	3.1	5.1	8.7	6.0	12.2	6.8	11.6	8.8	10.4
Illinois	8.5	7.5	4.5	2.7	2.9	5.6	6.7	11.5	8.2	12.9	10.8	17.1	10.3	2.8
Michigan	12.3	10.8	5.9	3.4	4.9	6.1	8.6	17.0	10.7	21.0	14.8	22.6	11.8	6.4
New Jersey	7.3	6.3	4.2	2.4	2.5	5.6	6.4	9.3	6.6	11.4	5.1	15.0	8.3	1/
New York	7.6	6.6	4.5	3.4	2.7	5.8	6.0	9.8	6.1	12.0	10.0	14.8	9.3	2.0
Ohio	9.6	8.5	4.5	2.7	3.4	4.4	6.5	13.8	10.6	15.6	11.6	19.1	9.4	2.2
Pennsylvania	8.4	7.4	4.1	2.4	3.2	5.7	5.4	11.5	9.4	12.0	8.4	17.3	8.6	7.5
Texas	5.3	4.7	3.1	2.5	1.6	3.1	4.6	5.7	3.6	7.8	3.7	8.7	8.1	5.9
Massachusetts Ranking Among the CPS 2/ States 3/	2nd	2nd	2nd 4/	3rd	2nd	3rd	3rd	2nd	5th	2nd	3rd	6th	1st	--
Other New England States														
Connecticut	6.2	5.4	3.5	2.8	1.4	4.7	5.2	8.0	5.4	10.6	1/	9.9	7.2	1/
Maine	7.2	6.6	3.8	2.9	2.3	4.9	5.1	8.1	5.9	8.1	8.2	13.3	10.0	1/
New Hampshire	5.0	4.5	2.4	1.7	2.0	2.7	3.5	6.4	5.5	6.7	1/	8.7	8.1	1/
Rhode Island	7.6	6.7	4.0	3.2	2.5	3.0	5.7	10.0	7.9	11.7	1/	10.7	7.2	1/
Vermont	5.7	5.2	3.3	2.4	1.4	5.0	5.2	7.5	4.9	9.3	1/	6.5	6.8	4.8
Massachusetts Ranking Among the New England States 3/	4th	4th	4th	3rd	5th	3rd	2nd 5/	5th	5th	3rd	--	6th	4th	--

1/ Available data does not meet the publication standards for reliability.
2/ The states which get their statewide labor force data directly from the Federal Government's Current Population Survey (CPS).
3/ Ranking is done only when there is data available for all the states being compared. Ranking is from lowest unemployment rate to highest.
4/ Tied with Florida
5/ Tied with Connecticut and Vermont.

Source: Draft Copy, Geographic Profile of Employment and Unemployment - 1981.

Table 30
Comparison of Unemployment by Occupation
United States and Massachusetts
1980 and 1981 Annual Averages

	United States			Massachusetts		
	1980	1981	Percentage Point Difference	1980	1981	Percentage Point Difference
Total Unemployment Rate	7.1	7.6	+0.5	5.6	6.4	+0.8
Experienced Unemployment Rate	6.4	6.8	+0.4	5.0	5.6	+0.6
White Collar Workers						
Total	3.7	4.0	+0.3	3.4	3.6	+0.2
Professional & Technical Workers	2.5	2.8	+0.3	2.9	2.6	-0.3
Managers & Administrators except Farm	2.4	2.7	+0.3	1.7	2.4	+0.7
Sales Workers	4.4	4.6	+0.2	4.5	3.8	-0.7
Clerical Workers	5.3	5.7	+0.4	4.6	5.2	+0.6
Blue Collar Workers						
Total	10.0	10.3	+0.3	7.5	8.5	+1.0
Craft & Kindred Workers	6.6	7.5	+0.9	6.3	6.9	+0.6
Operatives except Transport	12.2	12.2	--	7.6	8.7	+1.1
Transport Equipment Operators	8.8	8.7	-0.1	4.7	5.2	+0.5
Nonfarm Laborers	14.6	14.7	+0.1	12.4	15.1	-2.7
Service Workers	7.9	8.9	+1.0	5.6	7.6	+2.0
Farm Workers	4.4	5.3	+0.9	1/	1/	--

1/ Data does not meet BLS publication standards of reliability

Table 31A
UI Benefit Payments by Industry and Sex 1/
3rd Quarter 1981-2nd Quarter 1982

Industry		3rd Qtr. 1981	Percent	4th Qtr. 1981	Percent	1st Qtr. 1982	Percent	2nd Qtr.* 1982	Percent
15-89	Total	148,749	100.0	145,715	100.0	249,207	100.0	145,099	100.0
	Male	85,285	57.3	84,295	57.8	162,089	65.0	88,933	61.3
	Female	63,464	42.7	61,420	42.2	87,118	35.0	56,166	38.7
15-17 Construction	Total	14,642	100.0	17,332	100.0	52,483	100.0	22,220	100.0
	Male	13,710	93.6	16,385	94.5	50,558	96.3	21,033	94.7
	Female	932	6.4	947	5.5	1,925	3.7	1,187	5.3
19-39 Manufacturing	Total	64,399	100.0	64,036	100.0	100,571	100.0	69,030	100.0
	Male	36,636	56.9	31,879	49.8	55,797	55.5	37,120	53.8
	Female	27,763	43.1	32,157	50.2	44,774	44.5	31,910	46.2
40-49 Transp., Comm., Elec. Gas & Sanitary Services	Total	11,993	100.0	6,626	100.0	11,331	100.0	6,145	100.0
	Male	5,267	43.9	4,761	71.9	9,003	79.5	4,846	78.9
	Female	6,726	56.1	1,865	28.1	2,328	20.5	1,299	21.1
50-59 Wholesale & Retail Trade	Total	32,598	100.0	31,850	100.0	47,744	100.0	27,005	100.0
	Male	17,970	55.1	18,451	57.9	27,022	56.6	15,331	56.8
	Female	14,628	44.9	13,399	42.1	20,722	43.4	11,674	43.2
60-69 Fin., Ins., & Real Estate	Total	4,562	100.0	4,748	100.0	6,213	100.0	3,982	100.0
	Male	2,076	45.5	2,119	44.6	3,038	48.9	1,890	47.5
	Female	2,486	54.5	2,629	55.4	3,175	51.1	2,092	52.2
70-89 Services	Total	20,555	100.0	21,123	100.0	30,865	100.0	16,717	100.0
	Male	9,626	46.8	10,700	50.7	16,671	54.0	8,713	52.1
	Female	10,929	53.2	10,423	49.3	14,194	46.0	8,004	47.9

1/ Percentages by Industry
* Data for April and May 1982 only

Source: Special Industrial Report for Survey Month, averaged by quarter.

Table 31B
UI Benefit Payments by Industry and Sex 1/
3rd Quarter 1981-2nd Quarter 1982

Industry			3rd Qtr. 1981	Percent	4th Qtr. 1981	Percent	1st Qtr. 1982	Percent	2nd Qtr.* 1982	Percent
15-18		Total	148,749	100.0	145,715	100.0	249,207	100.0	145,099	100.0
		Male	85,285	57.3	84,295	57.8	162,089	65.0	88,933	61.3
		Female	63,464	42.7	61,420	42.2	87,118	35.0	56,166	38.7
15-17	Construction	Total	14,642	9.8	17,332	11.9	52,483	21.1	22,220	15.3
		Male	13,710	9.2	16,385	11.2	50,558	20.3	21,033	14.5
		Female	932	0.6	947	0.7	1,925	0.8	1,187	0.8
19-39	Manufacturing	Total	64,399	43.3	64,036	43.9	100,571	40.4	69,030	47.6
		Male	36,636	24.6	31,879	21.9	55,797	22.4	37,120	25.6
		Female	27,763	18.7	32,157	22.0	44,774	18.0	31,910	22.0
40-49	Trans., Comm. Elec. Gas & Sanitary Services	Total	11,993	8.1	6,626	4.5	11,331	4.5	6,145	4.2
		Male	5,267	3.5	4,761	3.3	9,003	3.6	4,846	3.3
		Female	6,726	4.6	1,865	1.2	2,328	0.9	1,299	0.9
50-59	Wholesale and Retail Trade	Total	32,598	21.9	31,850	21.9	47,744	19.2	27,005	18.6
		Male	17,970	12.1	18,451	12.7	27,022	10.8	15,331	10.6
		Female	14,628	9.8	13,399	9.2	20,722	8.4	11,674	8.0
60-69	Fin., Ins., & Real Estate	Total	4,562	3.1	4,748	3.3	6,213	2.5	3,982	2.7
		Male	2,076	1.4	2,119	1.5	3,038	1.2	1,890	113
		Female	2,486	1.7	2,629	1.8	3,175	1.3	2,096	1.4
70-89	Services	Total	20,555	13.8	21,123	14.5	30,865	12.4	16,717	11.5
		Male	9,626	6.5	10,700	7.3	16,671	6.7	8,713	6.0
		Female	10,929	7.3	10,423	7.2	14,194	5.7	8,004	5.5

1/ Percentages based on total.

* Data for April and May 1982 only.

Source: Special Industrial Report for Survey Month, averaged by quarter.

Table 32

Unemployed Persons By Reason for Unemployment
United States and Massachusetts - 1981 Annual Averages

	Total Unemployed (thousands)	Percent Unemployed By Reason For Unemployment					
			Job Losers				
		Total	Total	On Layoff	Job Leavers	Reentrants	New Entrants
Total							
United States	8273	100.0	51.6	17.3	11.2	25.4	11.9
Massachusetts	188	100.0	49.2	16.2	10.8	27.9	12.0
Men							
United States	4577	100.0	61.6	20.9	9.5	18.6	10.3
Massachusetts	105	100.0	58.1	16.9	8.5	22.7	10.7
Women							
United States	3696	100.0	39.1	12.8	13.2	33.9	13.8
Massachusetts	83	100.0	38.1	15.4	13.8	34.5	13.6
Both Sexes, 16-19 Years							
United States	1763	100.0	21.9	5.3	9.2	27.6	41.3
Massachusetts	41	100.0	16.0	4.3	8.6	35.2	40.3
Whites							
United States	6343	100.0	52.6	19.0	12.0	24.7	10.8
Massachusetts	174	100.0	49.1	17.1	10.9	28.1	11.9
Blacks							
United States	1731	100.0	56.2	11.8	0.7	27.7	15.5
Massachusetts	Available data does not meet the publications standards for reliability						

Source: Draft copy, Geographic Profile of Employment and Unemployment - 1981

Table 33
Unemployed Persons by Duration of Unemployment
United States and Massachusetts Demographic Groups
1981 Annual Averages

	Total Unemployed (Thousands)	Percent Unemployed by Duration of Unemployment					
		Total	Less Than 5 weeks	5-14 Weeks	15 Weeks And Over	27 Weeks And Over	52 Weeks and Over
TOTAL							
United States	8273	100.0	41.7	30.7	27.6	14.0	6.8
Massachusetts	188	100.0	43.0	35.0	22.0	10.2	3.9
Men							
United States	4577	100.0	37.8	30.8	31.3	16.8	8.2
Massachusetts	105	100.0	39.4	34.6	26.0	12.4	4.8
Women							
United States	3696	100.0	46.5	30.5	23.0	10.6	4.9
Massachusetts	83	100.0	47.6	35.5	17.0	7.5	2.9
Both Sexes, 16-19 Years							
United States	1763	100.0	52.1	30.8	17.0	6.7	3.0
Massachusetts	41	100.0	56.7	31.0	12.3	4.3	1.8
Whites							
United States	6343	100.0	42.6	31.0	26.4	13.0	5.9
Massachusetts	174	100.0	42.6	34.9	22.5	10.6	4.2
Blacks							
United States	1731	100.0	38.1	29.8	32.1	17.9	10.1
Massachusetts	Available data does not meet the publication standards for reliability						

Source: Draft copy, Geographic Profile of Employment and Unemployment - 1981

Table 34
Racial Characteristics of the Insured Unemployed
By
Massachusetts CETA Prime Sponsor Areas
March 1982

	White	Nonwhite	Spanish Surname	Other	Not Coded	Total Claims
Mass. CETA Prime Sponsors	80132	4111	2338	5023	296	91900
Boston	5185	2044	631	207	4	8071
Brockton	3044	134	72	19	13	3282
Cambridge (EMHRDA)	2842	148	137	29	2	3158
Fall River	3776	22	4	7	13	3822
Lowell	2966	26	43	14	15	3064
New Bedford	8665	508	20	26	32	9251
Pittsfield	2247	33	2	5	11	2298
Salem (SAETA)	5539	72	116	24	35	5786
Springfield	6768	532	359	41	38	7738
Worcester	4015	123	105	29	15	4287
Balance of State	35085	469	849	4622	118	41143

Table 35
Racial Characteristics of the Insured Unemployed
By
Massachusetts Labor Market Areas
March 1982

	White	Nonwhite	Spanish Surname	Other	Not Coded	Total Claims
Mass. Labor Market Areas	79421	4062	2307	614	287	86691
Athol	847	26	10	14	5	902
Barnstable County	3848	148	3	14	12	4025
Boston SMSA	29147	2444	1016	368	58	33033
Brockton SMSA	2429	126	61	16	10	2642
Clinton	327	7	17	5	5	361
Fall River*	3690	15	3	7	12	3727
Fitchburg-Leominster SMSA	1650	25	43	9	11	1738
Gardner	724	2	0	2	8	736
Gloucester	1274	2	0	2	3	1281
Great Barrington	225	4	0	0	0	229
Greenfield	827	5	2	5	2	841
Lawrence-Haverhill*	3360	23	405	15	18	3821
Lowell	2966	26	43	14	15	3064
Marlboro	811	72	55	10	1	949
Milford	645	5	16	3	4	673
Nantucket County	86	0	0	1	0	87
New Bedford	4590	206	19	11	18	4844
Newburyport	486	0	1	1	2	490
Pittsfield	2022	29	2	5	11	2069
Plymouth	1598	192	2	7	9	1808
Springfield-Chicopee-Holyoke	8304	542	365	48	45	9304
Taunton	1129	17	114	7	6	1273
Dukes County	257	10	0	4	1	272
Ware	337	1	1	4	0	343
Southbridge	527	0	14	1	2	544
Worcester	5709	127	111	36	19	6002
Providence R.I.*	1606	8	4	5	10	1633
Balance of State	711	49	31	4409	9	5209

* Massachusetts Portion only

VI. Labor Supply-Demand Imbalances

The Employment Service Automated Reporting System (ESARS) reported the occupations of 112,810 active applicants and 11,140 unfilled openings on file in all Massachusetts Job Matching Service Offices at the end of March 1982.

The data supplied by the ESARS System can be used in an analysis of labor supply and demand within the state. Especially useful in this type of analysis is the ratio of active applicants to unfilled job openings by occupation (Table 36). The ratios have been calculated to assist educational and manpower planners in pinpointing those occupations for which there is a demand. An occupational ratio greater than 3 to 1 may be considered as an occupation with a surplus of applicants, while an occupational ratio below 3 to 1 usually indicates high net demand occupations.

Before analyzing the data it is important to define some of the limitations of the ESARS system. The Job Bank openings refer only to positions listed within the Division of Employment Security. Unfortunately, a substantial number of job openings are never received by the Massachusetts Job Bank. Many job openings are filled by promotion from within a company. Many of Massachusetts' employers advertise their openings in local newspapers, or recruit through schools and private employment agencies, especially in the professional and technical fields. However, it should be noted that employers with federal government contracts are mandated by law to list certain openings with the Job Bank. In such cases some highly paid professional and technical positions, which might not otherwise be listed, would be included on the Job Bank. On the supply side some individuals may be more likely than others to use the Job Bank in seeking employment. Individuals seeking entry level employment such as youth and women reentering the workforce use the Job Matching Service in their job search efforts. Table 37 lists the characteristics of active applicants registered at job matching service centers.

In looking at the ratios of applicants to unfilled job openings, we see a wide disparity among the various occupations. Some shortages may exist because of a lack of qualified applicants, especially in the experienced professional and technical occupations. In other cases, employers may find that their positions go unfilled because of noncompetitive wages, unsuitable working conditions, transportation problems, etc. The occupations such as school teacher, in which there is large surplus of applicants, indicate a significant lack of job opportunities in the state for those seeking employment in those occupations.

Table 36
Active Applicants and Unfilled Job Openings
March 1982
Massachusetts

Occupational Code, Category and Occupational Title	Total Applicants During 6 Months Ending 3/31/82	Total Active Applicants as of 3/31/82	Total Unfilled Job Openings as of 3/31/82	Ratio Of Active Applicants to Unfilled Job Openings as of 3/31/82
TOTAL	236,454	112,810	11,140	10/1
0-1 Professional, Technical and Managerial	37,904	15,357	1,285	12/1
Electronics Technician	529	251	77	3/1
Civil Engineer	170	87	2	44/1
Systems Analyst, Electronic Data Proc.	186	101	8	13/1
Programmer, Business	328	130	5	26/1
Counselor	1,001	370	23	16/1
Nurse, General Duty	252	129	150	1/1
Medical Assistant	173	84	0	--
Dental Assistant	241	114	3	38/1
Nurse, Licensed Practical	373	220	120	2/1
Faculty Member, College or University	291	121	28	4/1
Teacher, Secondary School	2,355	555	11	50/1
Teacher, Elementary School	2,347	503	3	168/1
Lawyer	169	89	1	89/1
Accountant	775	347	8	43/1
Purchasing Agent	339	151	4	38/1
Manager, Sales	537	244	11	22/1
Public-Relations Representative	330	145	6	24/1
Administrative Assistant	1,370	602	10	60/1
Manager, Office	596	291	2	146/1
Manager, Retail Store	1,273	620	11	56/1
Manager, Food Service	656	313	10	31/1
Caseworker	329	127	8	16/1
Social Group Worker	205	85	15	7/1
2 Clerical and Sales	55,203	24,772	3,459	7/1
Legal Secretary	597	252	11	23/1
Medical Secretary	257	130	4	33/1
Secretary	3,246	1,496	122	12/1
Clerk-Typist	2,766	1,310	172	8/1
Keypunch Operator	723	373	50	7/1
Typist	194	95	22	4/1

Table 36
Active Applicants and Unfilled Job Openings
March 1982
Massachusetts

(continued)

Occupational Code, Category and Occupational Title	Total Applicants During 6 Months Ending 3/31/82	Total Active Applicants as of 3/31/82	Total Unfilled Job Openings as of 3/31/82	Ratio Of Active Applicants to Unfilled Job Openings as of 3/31/82
2 Clerical and Sales (cont.)				
Civil Service Clerk	716	458	9	51/1
Clerk, General	7,054	2,976	135	22/1
Mail Clerk	215	104	5	21/1
Bookkeeper	1,440	682	28	24/1
Bookkeeper II	570	277	13	21/1
Cashier I	1,283	680	49	14/1
Teller	504	214	86	2/1
Cashier II	1,273	488	231	2/1
Computer Operator	683	311	7	44/1
Payroll Clerk	214	115	4	29/1
Accounting Clerk	940	426	36	12/1
Administrative Clerk	3,826	1,858	129	14/1
Stock Clerk	1,116	424	41	10/1
Telephone Operator	407	241	21	11/1
Receptionist	1,335	608	32	19/1
Teacher Aide II	1,216	357	6	60/1
Sales Agent, Insurance	155	71	99	1/1
Sales Person, Women's Apparel and Accessories	314	158	17	9/1
Sales Persons, Automobiles	224	121	6	20/1
Sales Persons Gen. Mdse.	2,444	791	88	9/1
Sales Clerk	2,091	789	113	7/1
Sales Clerk, Food	364	151	62	2/1
Driver, Sales Route	355	165	6	28/1
Manager, Department	248	134	26	5/1
3 Services	39,385	20,183	2,951	7/1
Houseworker, General	884	644	37	17/1
Counter Attendant, Lunchroom or Coffee Shop	1,500	716	260	3/1
Waiter/Waitress, take out	2,886	1,732	116	15/1
Cafeteria Attendant	557	237	15	16/1
Bartender	928	503	9	56/1
Chef	277	135	11	12/1

Table 36
Active Applicants and Unfilled Job Openings
March 1982
Massachusetts

(continued)

Occupational Code, Category and Occupational Title	Total Applicants During 6 Months Ending 3/31/82	Total Active Applicants as of 3/31/82	Total Unfilled Job Openings as of 3/31/82	Ratio Of Active Applicants to Unfilled Job Openings as of 3/31/82
3 Services (continued)				
Cook,Restaurant	1,262	562	71	8/1
Cook, Short Order	762	328	37	9/1
Cook, Mess	523	235	14	17/1
Meat Cutter	208	101	5	20/1
Cook, Helper	193	77	8	10/1
Kitchen Helper	2,570	1,015	179	6/1
Cleaner, Hospital	162	80	35	1/1
Cleaner, Housekeeping	640	343	37	9/1
Cosmetologist	350	245	4	61/1
Psychiatric Aide	275	109	226	1/2
Nurse Aide	3,872	2,231	122	18/1
Orderly	166	73	0	--
Food Service Worker, Hosp.	447	214	41	5/1
Attendant, Children's Institution	369	215	60	4/1
Nursery School Attendant	357	193	51	4/1
Presser, Machine	169	105	6	18/1
Guard, Security	1,109	472	173	3/1
Merchant Patroller	489	204	57	4/1
Fire Fighter	241	71	0	--
Police Officer	373	96	4	24/1
Janitor	1,869	858	55	16/1
4 Agricultural, Fishery, Forestry and Related	3,217	1,682	96	18/1
Farm Worker, Field Crop II	270	135	0	--
Landscape Gardner	445	246	1	246/1
5 Processing	4,922	2,365	108	22/1
Injection-Molding Machine Tender	217	119	9	13/1
6 Machine Trades	17,053	8,379	516	16/1
Machinist	915	428	33	13/1
Machine Set-up Operator	300	137	4	34/1
Production-Machine Tender	439	186	2	93/1
Automobile Mechanic	1,442	644	48	13/1

Table 36
Active Applicants and Unfilled Job Openings
March 1982
Massachusetts

(continued)

	Occupational Code, Category and Occupational Title	Total Applicants During 6 Months Ending 3/31/82	Total Active Applicants as of 3/31/82	Total Unfilled Job Openings as of 3/31/82	Ratio Of Active Applicants to Unfilled Job Openings as of 3/31/82
	Machine Trades (continued)				
	Plant Mechanic	164	73	0	--
	Maintenance Mechanic	514	253	15	17/1
	Cabinetmaker	172	85	3	28/1
	Stitcher, Standard Machine	196	111	41	3/1
7	Benchwork	15,265	7,983	962	8/1
	Electronics Inspector I	227	135	25	5/1
	Electronics Assembler	1,888	961	103	9/1
	Electronics Inspector II	168	68	2	34/1
	Assembler, Electrical Acces.	350	177	17	10/1
	Salvager	345	192	254	1/1
	Painter, Spray	160	83	3	28/1
	Sewing Machine Operator	842	497	75	7/1
	Cementer, Hand	171	88	2	44/1
8	Structural Work	19,123	9,349	456	21/1
	Sheet Metal Worker	289	140	24	6/1
	Automobile Body Repairer	480	213	22	10/1
	Welder, Combination	251	108	3	36/1
	Electrician	290	116	21	6/1
	Electronics Mechanic	393	162	12	14/1
	Dry-wall Applicator	1,012	542	20	27/1
	Operating Engineer	285	153	0	--
	Carpenter	1,550	815	12	68/1
	Plumber	154	80	6	13/1
	Plumber Apprentice	171	69	3	23/1
	Labor, Construction or Leak Gang	177	85	4	21/1
	Roofer	335	198	14	14/1
	Construction Worker I	2,582	1,199	22	55/1
	Maintenance Repairer, Building	1,434	706	59	12/1

Table 36
Active Applicants and Unf lled Job Openings
March 1982
Massachusetts
(continued)

Occupational Code, Category and Occupational Title	Total Applicants During 6 Months Ending 3/31/82	Total Active Applicants as of 3/31/82	Total Unfilled Job Openings as of 3/31/82	Ratio Of Active Applicants to Unfilled Job Openings as of 3/31/82
9 Miscellaneous	35,243	15,429	1,277	12/1
Tractor Trailer - Truck Driver	1,162	621	7	89/1
Truck Driver, Heavy	2,305	1,157	28	41/1
Truck Driver, Light	1,517	700	25	28/1
Bus Driver	788	377	15	25/1
Taxi Driver	154	77	2	39/1
Automobile Service-Station Attendant	520	220	59	4/1
Packager, Hand	3,464	1,753	122	14/1
Packager, Machine	327	161	12	13/1
Material Handler	12,197	5,069	348	15/1

Source: ESARS Table 96

Table 37
Characteristics of Active Applicants
Registered at Job Matching Service Centers
March 1982

	Active Applicants	
	Number	Percent
TOTAL	128,304	100.0
Age		
15 and Under	163	0.1
16-19	11,323	8.8
20-21	8,182	6.4
22-39	75,356	58.7
40-54	26,188	20.4
55 and Over	7,092	5.5
Sex		
Male	58,044	45.2
Female	70,260	54.8
Highest School Grade Completed		
0-7	7,628	5.9
8-11	40,436	31.5
12	52,539	40.9
Over 12	27,701	21.6
Residence		
Urban	114,766	89.4
Rural	13,538	10.6
Race/Ethnic Origin		
White (not Hispanic)	104,125	81.2
Black (not Hispanic)	13,160	10.3
Hispanic	9,482	7.4
All Others	1,537	1.2
Unemployment Claimants	42,316	33.0
State U.A.	41,536	32.4
Other Programs	780	0.6
Veterans	16,561	12.9
Disabled	976	.8
Vietnam ERA	6,299	4.9
Under 35	4,125	3.2
Special Veteran	2,180	1.7

Table 37
Characteristics of Active Applicants
Registered at Job Matching Service Centers
March 1982
(continued)

	Active Applicants	
	Number	Percent
Handicapped	5,184	4.0
Economically Disadvantaged	63,917	49.8
Welfare Recipient	55,509	43.3
Win Registrant	54,823	42.7
CETA Participant	509	0.4

Source: ESARS Table 6

VII. Individuals in Need of Employment Services

Individuals with low skill and educational levels are the most in need of manpower services. During periods of an economic recession many skilled and educated people also need manpower services. Skilled and educated workers are presumed to be able to find work on their own once the economic slowdown improves but the unskilled and under-educated will probably always need some form of assistance.

For many federally funded work force training programs, assistance is allocated to individuals on an income status basis. Poverty income levels and lower living standard income levels are established by the U. S. Department of Labor.

The Employment and Training Administration defines an economically disadvantaged person as someone who is a member of a family that 1) receives cash welfare payments; or 2) has a family income that, in relation to the family size and location, represents seventy percent of the lower living income levels issued by the department's Bureau of Labor Statistics, or poverty levels established by the Office of Management and Budget.

Table 38
Family Poverty Level Incomes

Size of Family Unit	One	Two	Three	Four	Five	Six
Nonfarm Family	$4,680	$6,220	$7,760	$9,300	$10,840	$12,380
Farm Family	$4,010	$5,310	$6,610	$7,910	$ 9,210	$10,510

For family units with more than six members, add $1,540 for each additional member in a nonfarm family, and add $1,300 for each additional member in a farm family.

Table 39
Lower Living Standard Income Levels

Prime Sponsor (Metro)	Family Size					
	One	Two	Three	Four	Five	Six
Boston City	$5900	9680	13290	16400	19350	22630
Cambridge Consortium	5900	9680	13290	16400	19350	22630
New Bedford Consortium	5620	9210	12650	15620	18430	21550
Springfield Consortium	5620	9210	12650	15620	18430	21550
Worcester Consortium	5620	9210	12650	15620	18430	21550
Salem Consortium	5900	9680	13290	16400	19350	22630
Lowell Consortium	5620	9210	12650	15620	18430	21550
Brockton Consortium	5900	9680	13290	16400	19350	22630
Fall River Consortium	5620	9210	12650	15620	18430	21550
Balance of Massachusetts	5620	9210	12650	15620	18430	21550
Pittsfield Consortium	5620	9210	12650	15620	18430	21550

Table 40
70 Percent
Lower Living Standard Income Levels

Prime Sponsor (Metro)	Family Size					
	One	Two	Three	Four	Five	Six
Boston City	$4130	6770	9300	11480	13550	15840
Cambridge Consortium	4130	6770	9300	11480	13550	15840
New Bedford Consortium	3940	6450	8850	10930	12900	15090
Springfield Consortium	3940	6450	8850	10930	12900	15090
Worcester Consortium	3940	6450	8850	10930	12900	15090
Salem Consortium	4130	6770	9300	11480	13550	15840
Lowell Consortium	3940	6450	8850	10930	12900	15090
Brockton Consortium	4130	6770	9300	11480	13550	15840
Fall River Consortium	3940	6450	8850	10930	12900	15090
Balance of Massachusetts	3940	6450	8850	10930	12900	15090
Pittsfield Consortium	3940	6450	8850	10930	12900	15090

Table 41
Economically Disadvantaged 18 Years and Over
Federal Fiscal Year 1983

Group	Statewide Number	Balance of State Prime Sponsor Number
TOTAL	321,986	118,323
White	274,678	113,585
Black	28,959	2,015
Others	18,349	2,723
Spanish	18,458	3,074

VIII. Training Programs

Bay State Skills Corporation

The Bay State Skills Corporation (BSSC) is a state funded organization created in 1981 to provide matching grants to train Massachusetts citizens for jobs in growing private sector industries. A major aim of BSSC programs is to create ongoing partnerships between businesses and academic institutions. The BSSC provides funds for training in such occupations as machine operators, nuclear medicine technologists, tool and die makers, respiratory therapy technicians, registered and licensed practical nurses, and electronic technicians.

The BSSC has targeted certain groups to be primary recipients of job training. These include economically disadvantaged youth age 16 to 21 who live in urban areas. This group's high unemployment rate is of concern when considering job training strategies. The program will also provide money for job training of public employees who are among at least 50 persons in a locality whose jobs were eliminated because of Proposition 2½. State residents formerly employed by private companies are eligible for job training if they are one of at least 75 workers who have lost their jobs permanently because of layoffs, shutdowns, or a natural catastrophe involving one or several employers in an area. Finally, individuals receiving public assistance from the state, including recipients of Aid to Families with Dependent Children, are also eligible for job training under the state program.

The Career and Learning Line (CALL)

The Bay State Skills Corporations and the Massachusetts Occupational Information Coordinating Committee are sponsoring a telephone hotline with up to date career and educational information entitled "The Career and Learning Line" (CALL). This service went into effect on April 5, 1982, and offers descriptive information on over 400 different occupations along with specifics on educational and skills training programs available statewide. CALL will operate weekdays from 9:AM to 5:PM. To reach CALL dial 523-7617 in the Greater Boston Area; outside of Boston dial toll free; 1-800-882-2037.

Work and Training Program (WTP)

The Massachusetts Division of Employment Security entered into the Work and Training Program (WTP) on April 12, 1982. This program is designed to assist recipients of Aid to Families with Dependent Children (AFDC) in obtaining employment. Under WTP, DES Job Club Centers will be providing the following basic job search services:

Group Job Search (Job Club)
Individual Employment Search (IES)
Independent Job Search (IJS)

Two of the above three services (Job Club, IES) are intensive five week structured job seeking activities intended to be provided on an "up front" basis ; shortly after the initial registration, before an individual is assessed for work experience or training). The third (IJS) is administered after an individual has been unsuccessful in his/her initial five week job search efforts, has been reassessed by the Welfare Department, and has subsequently been returned to the DES Job Club Center for additional job search services.

During their initial five weeks in Job Clubs, or IES, WTP registrants are taught successful job search techniques, as well as given support and encouragement from Job Club leaders or IES counselors. IJS, while not as intensive or structured as Job Club or IES, gives WTP registrants a further opportunity to utilize their recently acquired job search skills over an extended period of time, under the guidance of a Job Club Center staff person.

Vocational Rehabilitation Training

One of the goals of the Massachusetts Division of Employment Security is to find suitable training and employment opportunities for the physically and emotionally handicapped. On a referral basis, the Division works closely with the Massachusetts' Rehabilitation Commission (MRC) towards this end. The Rehabilitation Commission will work both with the client and prospective employer to overcome barriers to gainful employment. The MRC helps employers hire the handicapped by providing:

a. a screened and tested job-ready applicant.
b. a job follow-along by professional counselors.
c. a partial reimbursement for on-the-job training
d. help with any problems ranging from architectural barriers to compliance with affirmative action.
e. the expertise of counselors as consultants.

The Morgan Memorial Goodwill Industries is another avenue through which the handicapped can become employed. Morgan Memorial has found that the handicapped can perform many tasks for industry such as: packaging, assembly, salvaging, manufacturing, mailing,crimping, grommeting, color coding, weaving, sorting, bar sealing, preforming electronic components, inspection, and shipping. These tasks and others can be performed well at a labor saving cost to industry, while providing employment and training to the handicapped. It is important for business to realize the benefits of this service in order to keep the handicapped in Morgan Memorial Goodwill Industries working and developing skills. This process may ultimately lead to the handicapped person taking his place in the workforce by being able to secure a job on his own.

APPENDIX

Job Bank Openings
By Selected Occupational Category
March 1982

Occupational Title	State	Boston	Fall River	Fitchburg Leominster	Lawrence Haverhill	Lowell	New Bedford	Pittsfield	Springfield-Chicopee Holyoke	Worcester	Balance of State
TOTAL ALL OCCUPATIONS	5099	1943	102	98	193	104	195	92	434	449	1161
Professional, Technical, Managerial	682	195	4	12	19	9	9	11	110	18	111
Architect & Engineering	45	13	--	1	2	1	4	4	12	1	10
Math. & Physical Science	20	7	1	--	--	1	--	--	5	3	2
Life & Social Sciences	20	9	--	--	--	--	2	1	3	1	6
Medicine & Health	225	10	--	--	8	--	--	1	7	4	12
Education	35	11	--	3	1	4	--	--	10	2	4
Museum Library	2	--	--	--	--	--	--	--	2	--	--
Law, Jurisprudence	2	--	--	--	--	--	--	--	5	--	--
Writing	3	1	--	--	--	--	--	--	1	--	1
Art	3	1	--	--	--	--	--	--	--	1	1
Entertainment	6	2	1	--	--	--	--	--	1	1	1
Administrative Specialists	81	46	2	4	1	--	3	1	12	1	9
Managers & Officials n.e.c.	102	39	--	3	3	--	--	4	23	3	25
Miscellaneous, Prof., Tech., Mgr.	38	7	--	1	4	2	--	--	17	1	6
Clerical and Sales	1163	490	22	11	47	28	16	9	191	96	302
Stenography, Typing & Related	339	174	3	2	16	2	2	2	86	23	74
Computing & Acct. Recording	279	90	9	4	8	7	4	2	73	63	58
Prod. & Stock Clerk	120	50	--	--	10	9	6	1	29	--	32
Information Distr.	75	50	2	1	2	3	--	--	1	3	11
Miscellaneous Clerical	23	10	3	2	2	--	1	1	1	--	3
Sales Persons Services	57	24	--	1	3	1	--	3	13	1	13
Sales Persons, Commodities n.e.c.	108	60	2	1	1	--	2	--	7	4	29
Miscellaneous Sales	149	25	3	--	5	6	1	--	30	2	80
Service	1109	512	9	11	22	8	28	14	31	161	150
Domestic Service	43	20	--	--	--	--	--	--	2	16	2
Food & Beverage Preparation	357	184	--	6	4	--	19	4	8	67	58
Lodging & Related Service	140	86	--	--	--	--	--	3	3	50	1

Job Bank Openings
By Selected Occupational Category
March 1982
(continued)

Occupational Title	State	Boston	Fall River	Fitchburg Leominster	Lawrence Haverhill	Lowell	New Bedford	Pittsfield	Springfield * Chicopee Holyoke	Worcester	Balance of State
Service (continued)											
Miscellaneous Personal Service	303	47	3	5	7	--	2	2	3	12	60
Protective Services	134	96	1	--	2	--	7	2	13	6	14
Building & Related Service	106	65	--	--	8	--	--	3	2	8	14
Apparel/Furnishings Service	21	--	5	--	1	--	--	--	--	2	1
Farming, Fishing, Forestry	156	87	--	--	2	--	20	3	7	7	34
Plant Farming	134	73	--	--	2	--	40	2	1	6	31
Animal Farming	3	--	--	--	--	--	--	1	2	1	1
Forestry	16	14	--	--	--	--	--	--	4	--	--
Processing	116	44	2	9	4	2	--	--	10	4	37
Metal	16	3	--	1	--	2	--	--	--	--	10
Food, Tobacco	42	33	--	--	--	--	--	--	2	1	5
Chemicals, Plastics, Synthetics	39	5	--	8	--	--	--	--	6	3	18
Stone, Clay, Glass	4	--	--	--	--	--	--	--	--	--	4
Leather and Textiles	12	--	2	--	4	--	--	--	--	--	--
Processing Occupations n.e.c.	3	3	--	--	--	--	--	--	--	--	--
Machine Trades	429	144	11	13	35	21	13	4	22	27	126
Metal Machining	99	30	3	3	9	5	5	--	5	7	27
Metal Working n.e.c.	32	17	3	--	2	1	--	2	--	--	9
Mechanics & Machinery Repairers	134	70	3	5	2	3	7	--	9	12	15
Printing & Paperworking	28	9	--	--	--	--	--	2	6	1	8
Wood Machining	14	1	--	5	1	--	--	--	--	2	5
Textiles	31	--	--	--	1	3	1	--	1	3	21
Machine Trades n.e.c.	91	17	2	--	20	8	--	--	1	2	41
Benchwork	583	180	53	16	12	10	52	42	23	24	165
Metal Products	33	12	--	--	1	--	1	8	2	2	9
Scientific & Electrical Equipment	239	79	4	4	1	7	40	--	--	2	81
Plastics, Synthetic, Rubber	11	--	--	2	2	--	--	--	--	1	8
Stone and Wood Products	17	3	--	--	1	--	--	--	--	1	12
Textile, Leather	262	83	47	10	7	--	11	25	3	18	50
Benchwork Occupations n.e.c.	11	--	2	--	1	--	--	9	--	--	--

Job Bank Openings
By Selected Occupational Category
March 1982
(continued)

Occupational Title	State	Boston	Fall River	Fitchburg Leominster	Lawrence Haverhill	Lowell	New Bedford	Pittsfield	Springfield* Chicopee Holyoke	Worcester	Balance of State
Structural Work	392	173	1	11	40	24	21	6	26	18	70
Metal Fabrication	56	24	--	3	4	6	2	1	2	6	8
Welders	62	45	--	--	1	2	8	--	--	1	4
Electrical	103	57	--	2	5	11	--	--	14	6	18
Painting	28	17	--	--	--	--	--	--	8	1	?
Excavating, Grading etc.	3	--	--	--	--	--	--	--	--	1	--
Construction Occupations n.e.c.	118	25	--	4	24	--	10	4	1	2	34
Structural Occupations n.e.c.	22	5	1	2	6	5	1	1	1	1	4
Miscellaneous	469	118	--	15	12	2	36	3	14	94	166
Motor Freight Occupations	58	23	--	--	3	--	4	--	5	5	15
Transportation Occupations	35	16	--	2	2	--	--	--	--	1	14
Packing, Material Handling	349	71	--	11	1	1	32	3	4	87	129
Production, Distribution of Util.	16	3	--	2	--	--	--	--	4	--	5
Graphic Art Work	10	4	--	--	--	1	--	--	1	1	3

Source: Labor Market Information Analytical Table Series

* Springfield-Chicopee-Holyoke data for February 1982

Average Pay by Selected Occupational Category
Massachusetts Job Banks
March 1982

Occupational Title	State	Boston	Fall River	Fitchburg Leominster	Lawrence Haverhill	Lowell	New Bedford	Pittsfield	Springfield Chicopee Holyoke	Worcester	Balance of State
TOTAL ALL OCCUPATIONS	$10,220	$10,459	$ 9,479	$ 9,589	$11,232	$ 9,774	$ 8,957	$ 8,881	$10,519	$ 8,678	$ 9,852
Professional, Technical, Managerial	15,640	17,068	14,852	12,384	[illegible]	17,639	14,143	15,466	14,178	15,942	15,523
Architecht and Engineering	20,783	24,056	--	--	24,356	34,008	16,625	20,667	16,603	25,000	19,959
Math and Physical Science	19,398	21,209	14,547	--	--	22,000	--	--	15,508	23,000	18,762
Life and Social Sciences	13,761	17,550	--	--	--	--	10,192	10,000	11,667	11,000	10,425
Medicine and Health	15,176	12,918	--	--	17,680	--	--	12,168	11,869	14,560	14,928
Education	13,418	12,691	--	8,579	7,800	15,625	--	--	13,918	17,084	16,506
Museum Library	10,700	--	--	--	--	--	--	--	9,400	--	--
Law, Jurisprudence	8,684	--	--	--	--	--	--	--	9,261	--	--
Writing	13,773	20,000	--	--	--	--	--	--	11,700	--	9,620
Art	12,060	18,500	--	--	--	--	--	--	--	9,360	8,320
Entertainment	15,459	18,928	20,800	--	--	--	--	--	10,400	13,000	10,700
Administrative Specialists	14,535	14,566	12,031	--	16,000	--	13,467	25,000	17,458	--	13,484
Managers and Officials n.e.c.	13,536	16,156	--	15,333	17,553	--	--	10,656	14,045	13,280	12,188
Miscellaneous, Prof., Tech., Mgr.	11,684	13,214	--	14,950	--	13,788	--	--	10,218	11,400	12,267
Clerical and Sales	9,001	9,419	9,296	8,356	10,228	8,423	7,668	8,073	8,050	8,920	8,577
Stenography, Typing and Related	9,321	9,679	10,053	8,424	10,776	10,250	8,922	7,540	8,898	9,085	8,672
Computing and Acct. Recording	8,435	8,826	9,245	7,722	10,086	8,908	7,826	8,939	7,435	8,533	7,777
Production and Stock Clerk	9,209	10,383	--	--	8,705	7,962	7,107	10,400	7,036	--	8,866
Information Distr.	9,100	9,482	7,124	6,968	8,164	7,869	--	--	7,176	8,749	8,655
Miscellaneous Clerical	10,076	10,866	9,185	9,880	10,400	--	9,991	8,398	9,877	--	8,907
Salespersons Services	11,191	10,508	--	--	15,600	10,400	--	6,968	12,031	7,800	10,975
Salespersons, Commodities n.e.c.	9,139	8,361	18,000	9,100	6,968	--	6,968	--	11,800	12,950	10,325
Miscellaneous Sales	8,078	8,586	7,349	--	9,984	7,887	6,968	--	7,579	11,960	7,903
Service	$ 4.27/hr	$4.28/hr	$4.77/hr	$3.65/hr	$4.20/hr	$3.64/hr	$3.66/hr	$4.02/hr	$4.48/hr	$3.72/hr	$4.76/hr
Domestic Service	3.53	3.62	--	--	--	--	--	--	3.45	3.35	5.00
Food and Beverage Preparation	4.11	4.35	--	3.35	3.63	--	3.73	4.44	3.86	3.51	4.39
Lodging and Related Service	4.28	4.49	--	--	--	--	--	3.35	3.45	4.00	3.50
Miscellaneous Personal Service	4.56	4.05	3.61	4.00	--	--	3.35	3.50	3.35	3.94	5.33
Protective Services	4.24	4.23	9.13	--	3.60	--	3.56	4.00	5.54	3.50	4.34
Building and Related Service	4.33	4.36	--	--	4.42	--	--	4.51	4.00	4.14	4.08

Average Pay by Selected Occupational Category
Massachusetts Job Banks
March 1982
(continued)

Occupational Title	State	Boston	Fall River	Fitchburg Leominster	Lawrence Haverhill	Lowell	New Bedford	Pittsfield	Springfield* Chicopee Holyoke	Worcester	Balance of State
Farming, Fishing, Forestry	$3.97/hr	$3.91/hr	$--	$--	$3.55/hr	$--	$3.44/hr	$3.58/hr	$4.20/hr	$4.05/hr	$4.40/hr
Plant Farming	3.90	3.96	--	--	3.55	--	3.44	3.70	4.80	4.16	4.04
Animal Farming	3.38	--	--	--	--	--	--	3.35	3.90	3.40	NA
Forestry	10.00	3.68	--	--	--	--	--	--	--	--	--
Processing	4.40	4.35	3.35	4.19	4.00	4.00	--	--	4.41	4.40	4.49
Metal	4.74	4.50	--	6.00	--	4.00	--	--	--	--	4.83
Food, Tobacco	4.03	4.06	--	--	--	--	--	--	3.35	3.65	--
Chemicals, Plastics, Synthetics	4.33	5.35	--	3.96	--	--	--	--	4.05	4.65	4.25
Stone, Clay, Glass	5.00	--	--	--	--	--	--	--	--	--	5.00
Leather and Textiles	4.91	--	3.35	--	4.00	--	--	--	--	--	--
Processing Occupations n.e.c.	5.70	5.70	--	--	--	--	--	--	--	--	--
Machine Trades	5.30	5.65	5.21	5.30	4.93	4.80	5.91	5.25	5.80	5.45	4.77
Metal Machining	6.17	5.52	6.00	6.17	6.71	5.50	7.70	--	7.56	6.57	5.99
Metal Working n.e.c.	3.95	3.89	3.35	--	3.98	4.00	--	--	--	--	4.25
Mechanics, & Machinery Repairers	6.10	6.38	4.63	6.17	6.25	7.50	4.24	4.50	5.40	5.58	5.61
Printing and Paperworking	5.28	5.54	--	--	--	--	--	6.00	5.95	4.00	5.06
Wood Machining	4.61	7.00	--	3.90	4.00	--	--	--	--	4.00	5.20
Textiles	4.44	--	--	--	4.35	4.59	5.59	--	3.75	4.17	4.47
Machine Trades n.e.c.	4.04	4.26	6.00	--	4.18	3.58	--	--	4.75	4.75	3.83
Benchwork	4.15	4.09	4.25	3.70	5.90	4.72	3.72	3.50	4.32	4.02	4.45
Metal Products	4.95	4.64	--	--	3.75	--	5.10	3.45	5.68	4.30	6.95
Scientific & Electrical Equip.	4.15	4.08	3.40	4.00	--	4.31	3.71	--	--	5.86	4.46
Plastics, Synthetics, Rubber	4.18	--	--	4.23	4.00	--	--	--	--	4.00	4.25
Stone and Wood Products	4.39	3.35	--	--	14.00	--	--	--	--	4.25	4.20
Textile, Leather	4.03	4.15	4.37	3.48	5.26	--	3.65	3.35	3.35	3.78	4.11
Benchwork Occupations,n.e.c.	3.84	--	3.35	--	--	--	--	3.95	--	--	--
Structural Work	5.95	6.74	5.00	5.54	5.47	4.41	6.23	4.67	6.44	5.31	5.08
Metal Fabrication	6.39	7.48	--	5.55	--	5.23	6.19	4.00	5.00	5.25	6.00
Welders	6.43	6.41	--	--	7.00	5.00	7.42	--	--	5.00	5.50
Electrical	6.05	6.97	--	8.65	6.05	3.70	--	--	6.18	4.42	4.82

Average Pay by Selected Occupational Category
Massachusetts Job Banks
March 1982
(continued)

Occupational Title	State	Boston	Fall River	Fitchburg Leominster	Lawrence Haverhill	Lowell	New Bedford	Pittsfield	Springfield* Chicopee Holyoke	Worcester	Balance of State
Structural Work (continued)											
Painting	$6.79/hr	$6.97/hr	$--	$ --	$--	$ --	$ --	$--	$6.50/hr	$5.50/hr	$7.00/hr
Excavating, Grading etc.	7.83	--	--	--	8.00	--	--	--	--	7.50	--
Construction, Occupations n.e.c.	5.37	6.20	5.00	4.75	5.20	--	5.47	4.75	15.85	7.50	4.85
Structural Occupations n.e.c.	4.76	5.46	--	4.00	--	4.75	4.40	5.00	3.35	4.50	4.88
Miscellaneous	4.24	4.24	--	5.02	4.55	4.00	4.09	4.37	6.93	3.65	4.24
Motor Freight Occupations	4.72	4.39	--	--	4.33	--	4.71	--	4.74	4.85	5.02
Transportation Occupations n.e.c.	4.06	4.09	--	6.72	5.19	--	--	--	--	5.03	3.42
Packing, Material Handling	3.95	3.99	--	4.18	4.45	4.00	4.02	4.37	4.18	3.56	4.10
Production, Disbribution of Util.	8.42	6.47	--	8.00	--	--	--	--	11.04	--	7.38
Graphic Art Work	5.02	5.66	--	--	--	4.00	--	--	5.05	4.50	5.00

Source: Labor Market Information Analytical Table Series

* Springfield-Chicopee-Holyoke data for February 1982